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July 30, 2010

Via Hand-Delivery

Brian Bozzo, Compliance Manager
Utilities Division
ARIZONA CORPORATION COMMISSION
1200 West Washington Street
Phoenix, Arizona 85007

Re: Compliance Filing of Sulphur Springs Valley Electric Cooperative, Inc. ("SSVEC")
Decision No. 71794
Docket Nos. E-01575A-08-0328 and E-01575A-09-0453

Dear Mr. Bozzo:

Arizona Corporation Commission's Decision No. 71794 (July 12, 2010) ("Decision") in the above-referenced consolidated dockets, requires SSVEC to comply with the following:

> *IT IS FURTHER ORDERED that Sulphur Springs Valley Electric Cooperative, Inc. shall file its 2011 Renewable Energy Standard Tariff Implementation plan as soon as possible, but in no case later than July 30, 2010. The Plan shall contain renewable programs designed specifically for the area served by the V-7 Feeder and shall also contain a detailed plan on how Sulphur Springs Valley Electric Cooperative, Inc. plans to deal with and eliminate the current over-subscription to its distributed generation programs.*[1]

On July 23, 2010, SSVEC filed in Docket No. E-01575A-10-0308 its 2011 Rest Plan and Tariff in compliance with the above-cited requirements of the Decision.

[1] Decision at page 25, lines 1-6.

The Decision further requires SSVEC to comply with the following:

> *IT IS FURTHER ORDERED that Sulphur Springs Valley Electric Cooperative, Inc. shall comply with Staff's recommendations discussed herein in Finding of Fact No. 90, and shall file by July 30, 2010, as a compliance item in this docket, a detailed plan of how it will encourage and educate its members on the use of renewable energy and demand side management practices.*[2]

Attached is Compliance Report prepared by SSVEC that complies with the above-cited requirements of the Decision.

If you have any questions, please do not hesitate to contact me or Jack Blair at SSVEC.

Very truly yours,

SNELL & WILMER

Bradley S. Carroll

BSC/dcp
Attachment

cc: Docket Control (Original plus 14 copies)
Jack Blair
David Bane

[2] Decision at page 24, lines 15-18.

Sulphur Springs Valley Electric Cooperative, Inc.

A Touchstone Energy® Cooperative

Sulphur Springs Valley Electric Cooperative, Inc.'s ("SSVEC" or "Cooperative")
Compliance Report for Arizona Corporation Commission
Decision 71274 Dated July 12, 2010

July 30, 2010

Arizona Corporation Commission ("Commission") Decision No. 71274 dated July 12, 2010 ("Decision") provides the following:

> *IT IS FURTHER ORDERED that Sulphur Springs Valley Electric Cooperative, Inc. shall comply with Staff's recommendations discussed herein in Finding of Fact No. 90, and shall file by July 30, 2010, as a compliance item in this docket, a detailed plan of how it will encourage and educate its members on the use of renewable energy and demand side management practices.*[1]

The purpose of this document is to provide the Commission with the requested information in compliance with the above-cited ordering paragraph of the Decision.

I. IMPLEMENTATION OF NAVIGANT SUGGESTION

Finding of Fact No. 90 of the Decision sets forth Staff's recommendation that *"the Cooperative implement Navigant's suggestion that SSVEC modify its employee schedules, as approporate to help mitigate the length of outages."*[2]

Although Navigant did not review SSVEC's current policies and procedures prior to providing a standard recommendation of realigning the work force to reduce outage hours on the V7 Feeder, as a result of Navigant's recommendations, SSVEC has reviewed its current procedures and found additional measures which will be implemented for this area. They include the following:

---

[1] Decision at page 24, lines 15-18.
[2] Decision at page 19, lines 22-23.

- Realigning Daily Presence in the Area: Currently SSVEC has one service person assigned to this area on a twice-weekly basis. For additional presence, SSVEC will increase the daily hours in the area. Further, SSVEC has an ongoing maintenance program in the area which will allow additional crews to be available for faster response to any outage.

- After Hours Stand-By Crews: Currently SSVEC doubles its stand-by crews in the summer monsoon storm period. For this area, SSVEC has assigned additional stand-by hours to those personnel living in/near the area to act as immediate responders or scouts for after-hour outages.

- Technological Advancements: Currently SSVEC's SCADA division monitors all weather/lightning activity in its service territory and provides advance notification to crews of severe weather areas. SSVEC will be implementing additional technological measures from its Smart Grid Program with improved electronic equipment devices that will be controllable by SCADA for reduction of outage hours.

II. SSVEC'S PLAN TO EDUCATE AND ENCOURAGE ITS CUSTOMERS ON RENEWABLE ENERGY AND DEMAND SIDE MANAGEMENT PRACTICES

SSVEC has in the past, and will continue in the future, to use a variety of communication vehicles to educate its members on, and to encourage its members to adopt, renewable energy and demand side management practices. Some of these vehicles are regular efforts (monthly bill inserts and bi-monthly member magazine), some are on-going (website, speakers bureau, brochures), some are targeted (direct mail and community presentations), and others are occasional (press releases and paid advertising). The topics routinely covered are electrical safety, energy management, cooperative programs and events, and electric utility issues to include renewable energy, demand side management (including Smart Grid), and energy

efficiency. SSVEC's Member Communication Plan for the next 12 months and beyond includes the following:

Bill Insert

Co-op Connection - 12 issues for the year.
Over the next year:

- One article on winter energy savings
- One article on summer energy saving tips
- One article on tips to save energy at home when on vacation
- One article on net metering
- Announce availability of speakers bureau in two bill insets
- Offer copies of *Energy Savings Guide* in two bill inserts
- Provide website address in each insert with a brief explanation of some of the information that can be found there

Member Magazine

Currents - 6 issues per year
Over the next year:

- One feature article on Cooperative members making renewable energy/net metering work for them
- One article on new electrical or energy technologies
- Two articles on the status of SSVEC's Smart Grid program
- One article on informational materials available to Cooperative members

And in each issue:

- Energy-savings article by James Dulley
- One additional energy-savings article
- Website listing and example of information to be found there

Presentations, Survey and Brochures/Materials

For August and September 2010:

- Conduct community presentations on renewable energy, energy demand side management, energy efficiency, and Smart Grid
- Complete a member survey regarding current and potential demand side management programs and features of Smart Grid technology

For September 2010:

- Provide *Energy Savings Guide* for distribution at County Fair booths along with looped TV commercials for Meter Miser and Time of Use Rates

For September and October 2010:

- Community Leader Luncheons in Willcox, Benson and Sierra Vista
- Future home and trade shows (including providing an *Energy Savings Guide* for distribution at show booths along with looped TV commercials for Meter Miser and Time-of-Use Rates)

Paid Advertising

- 1 campaign on Time of Use messages
- 3 campaigns on Meter Miser messages

Website, Press Releases, Direct Mail, Group and Organization Presentations

- Update website as needed to announce new programs and revise existing information
- Create press releases and direct mail as needed for events and programs
- Group or organization presentations determined by invitations/requests

Set forth below is a more detailed explanation of the vehicles utilized by the Cooperative with representative examples of customer communication items from the past year:

Bill Insert

Co-op Connection

Sent monthly to all members with their electric bills

Each monthly bill (paper or electronic) is accompanied by a bill insert (single sheet printed front and back). One part of each month's insert is the calendar of SSVEC's regular monthly board meetings and office closings (along with the 1-800 telephone number to report after-hours outages). The second portion included each month is a listing of community and non-profit events within our service area. This is a powerful public relations tool that announces fundraisers and special events to include, on occasion, seminars on renewable energy and water conservation. The topics for the feature article in each monthly issue include safety, energy saving tips and new programs from the cooperative. These topics are often developed from members' questions or input from our customer services personnel. The bill insert provides an effective way to introduce/announce new programs or provide updates on consumer-related issues.

Member Magazine

Currents

Delivered by mail to all members bi-monthly

Our member newsletter is distributed six times a year (January, March, May, July, September, and November). Six of the 32 pages are specific to SSVEC. Two pages in each issue are from our statewide organization, Grand Canyon State Electric Cooperative Association ("GCSECA"), and the remaining pages are common to all of Ruralite's 300,000 rural electric cooperative members throughout several western states (Alaska, Montana, Idaho, Oregon, Washington, Nevada, California, New Mexico and Arizona). These other articles include topics such as

energy and demand side management, energy efficiency, electric utility issues including renewable energy and new and emerging technologies and features on interesting cooperative members.

Currently, pages 3 and 25 of each of SSVEC's editions of *Currents* include energy management articles. GCSECA provides an article on page 3 (examples, Energy Star appliances, phantom or "vampire" electric loads, value of home insulation, etc.). Page 25 is an energy-saving article by syndicated columnist Jim Dulley. His topics may include information on ground source heat pumps, energy-efficient windows, or getting the most for your "lighting" dollars. The back page (page 32) is reserved for a column from our CEO and his topics vary from the seven (7) cooperative principles to costs of providing electric service to announcement of new projects such as Smart Grid.

Pages 4 and 5 are reserved for "news" features relating to our service area such as the first solar installation by one of our commercial members, to recognition received by SSVEC from the Solar Electric Power Association to SSVEC's participation in the International Linemen's Rodeo. We also include the announcement of new programs offered by the cooperative, annual events such as our annual meeting and the introduction of newly elected directors to our board of directors.

Pages 28 and 29 usually include a feature on a cooperative program such as our science fair or Washington Youth Tour or a more in-depth look at a Cooperative related topic such as our key accounts program or areas of the home to examine in an energy-audit.

SSVEC's Website – *WWW.SSVEC.ORG*

SSVEC's website contains varied information including program descriptions, safety and energy-saving information, contact phone numbers for our offices, electronic versions of our bylaws and recent annual reports. There are *Quick Links* on the opening home page for "Renewable Energy Program," "Energy Efficiency Loan Program," "Home Energy Saving Measures," and "Energy Savings Program." The website allows us to update it easily and often and maintain the information for reference at members' convenience.

Brochures

SSVEC uses a variety of brochures on the subject of energy management/conservation. Some are prepared in-house, some in cooperation with other cooperatives or organizations, and some purchased from outside sources. Two of the most popular we've been using (and will continue to use) are *101 Low Cost / No Cost Home Energy-Saving Measures* and *Energy Savings Guide.* The former was developed by Touchstone Energy which is a national alliance of approximately 700 electric cooperatives nationwide. *Energy Savings Guide* was produced by the Member and Public Relations Committee of the Grand Canyon State Electric Cooperative Association. The committee is made up of individuals from six Arizona electric cooperatives and one California electric cooperative. Brochures are distributed at community and public events such as home shows and county fairs and are available at all cooperative offices and when requested by individual members. Energy management specialists also use them when they are conducting energy audits or responding to high bill complaints.

SSVEC Speakers' Bureau and Community Presentations

SSVEC regularly announces and provides speakers for meetings of business, civic and service organizations. We offer presentations on safety, energy management, renewable energy, member programs, and current issues on energy topics on the local, regional, and national levels. Each year in honor of Cooperative Month in October, we host community leader luncheons in Sierra Vista, Benson and Willcox. Key decision makers (city council members, school superintendents and school board members, Chamber of Commerce directors, realtors, health professionals, managers of other utilities, including telecommunications, facility managers for large industrial customers and others) are extended an invitation to lunch and a presentation by our CEO on the state of the Cooperative including announcements of key issues or new programs at SSVEC. The CEO usually elaborates on key points he's discussed at the previous annual meeting (in April). Because our annual meeting location rotates among the three communities (Sierra Vista, Willcox and Benson), many of the attendees at our Community Leaders Luncheons have not previously heard him speak to these issues.

It should be noted that during the months of August and September (2010), SSVEC is hosting a community presentation program on renewable, demand side management and Smart Grid. There will be a presentation given to Chambers in Willcox, Benson and Sierra Vista. This session will also be repeated for the general public in Willcox, Benson, Pearce-Sunsites, Elfrida, Benson, Sonoita and Sierra Vista.

Direct Mail, Press Releases, Annual Report and Paid Advertising

For timely matters, SSVEC has used direct mail for the past three years. It enables the Cooperative to reach each member directly and isn't time-bound as are some of the other methods. Press releases are issued to the local media (four newspapers and six radio stations) and occasionally to the Tucson/Phoenix newspapers and television. Except for information regarding power outages, most press releases support other vehicles in announcing cooperative programs and events.

Our annual report is mailed to each member and includes general information on the Cooperative, as well as financial information and reports from the board president and the CEO. Past issues of the annual report are archived at the Cooperative's website.

SSVEC places paid advertising in the four newspapers and six radio stations within our service area). In addition, the Cooperative places a small number of television ads with the local cable television outlet that reaches many of our members in the Willcox, Benson, Sunsites, Sierra Vista and surrounding areas.

Representative Examples of Customer Communication Items

Co-op Connection – Exhibit A

August 2010	"Save Electricity and Stay Cool This Summer in Two Easy Steps"
July 2010	"Improve Home Energy Efficiency with a Zero Percent Loan from SSVEC"
	"Increased Funds for SSVEC's Smart Grid Project"
	"SSVEC Earns National Award from Solar Association"
June 2010	"Going on Vacation?"
March 2010	"Net Metering Is Here!"
January 2010	"Keeping Warm and Saving Energy this Winter"
December 2009	"TOGETHERWESAVE.COM"
October 2009	"Look for the Energy Star"
	"Calculate Energy Savings with a New Refrigerator"
September 2009	"Low Cost and No Cost Ways to Save Energy"
August 2009	"SSVEC offers 'Budget Billing'"
	"Check Graph on Your Monthly Electric Bill"
	"Need a speaker for you club, organization or classroom? Call SSVEC!"

Currents – Exhibit B

July 2010	Page 4	"SSVEC Earns Top Honor from Solar Association"
	Page 5	"Zero-Interest Energy-Efficiency Loans Offered"
	Pages 6 and 7	"Pack Up Energy Savings"
	Pages 8 and 26	"Wise Use of Electricity"
	Page 25	"Metal Roofs Keep Your Home Cooler"
May 2010	Page 3	"When Is It Time for an Upgrade?"
	Pages 8 and 26	"Established Flexibility"
	Page 25	"Recessed Lighting Can Be Efficient"
March 2010	Page 3	"Energy Star: A Bright Light"
	Page 5	"Net Metering is Available"
	Pages 6 and 7	"An Electric Rate Formula"
	Pages 8 and 26	"Conserving Electrical Resources"
	Page 25	"Efficient Faucets Save on Two Fronts"
January 2010	Page 3	"Look for Leaks in Your Home"
	Page 5	"Energy Efficiency"
	Pages 6 and 7	"Tax Credits for Home Owners"
	Page 8	"Appliances that Save Money"
	Page 25	"Geothermal Heat Pump Is Ultra-Efficient
	Page 26	"Plug Into Energy Savings"
	Page 32	"SSVEC and the Smart Grid"

November 2009

Page 3	"Together We Save"
Page 25	"Fiberglass Frames Save Energy"
Page 32	"Controlling the Cost of SSVEC's Purchased Power Contracts"

September 2009

Page 3	"Do-It-Yourself Home Energy Audits"
Pages 6 and 7	"Wrap It Up"
Page 25	"LEED: Building Efficiency from the Ground Up"

July 2009

Page 4	"Sun Now Helps Power Castro Electric Facilities"
Pages 6 and 7	"Searching for Green Electricity"
Pages 8 and 26	"More Homeowners Try Renewable Energy"
Page 25	"Get Portable This Summer"
Page 32	"Stimulus Money for SSVEC"

Brochures on Saving Energy – Exhibit C

- *101 Low-Cost/No-Cost Home Energy Saving Measures*
  Produced by Touchstone Energy (National Alliance of Electric Cooperatives)
- *Energy Savings Guide*
  Produced by Grand Canyon State Electric Cooperative Association

Direct Mail – Exhibit D

- "Announcing Community Seminars: SSVEC's Renewable Energy and Energy Efficiency Programs" July 2010
- "Frequently Asked Questions about SSVEC's Renewable Energy Program" June 2010
- "Net Metering" February 2010
- "SunWatts Flyer" February 2010

Press Releases – Exhibit E

10-006	"SSVEC Offers Zero Interest Loans for Home Energy-Efficiency Upgrades"
10-005	"SSVEC Earns Top Honor in National Association's Annual Survey of Increased Solar Utilization"
10-001	"SSVEC Eager to Begin Sonoita Line Project"
09-011	"SSVEC and Two Other Co-ops Receive Federal Grant to Improve Electrical Grid"
09-008	"SSVEC Considering Building Solar Facility in Sonoita Area"

Annual Report – Exhibit F

- *2009 Annual Report, Sulphur Springs Valley Electric Cooperative, Inc.*

Ads – Exhibit G

Renewable Energy

SSV913 SunWatts Man Radio
SSV914 SunWatts Woman Radio
SSV915 Renewable Energy 3A (Television)
SSV917 SunWatts Man Print Ad
SSV918 Revised Solar Panels Print Ad

Time-of-Use

Max Time of Use 3A (Television)
SSV900 Question 3A (Television)
SSV903 Laundry 6A Radio
SSV904 Questions 6A Radio
SSV905 Wash Late Print
SSV906 Shift your Power Print
SSV907 Questions Ad Print

Meter Miser

Out the Window (Television)
SSV850 Animated (Television)
SSV851 Meter Miser Measures (Television)
Meter Miser Radio Scripts (3)
SSV852 Ceiling Fan Print
SSV853 Weather stripping Print
SSV854 HVAC Filter Print
SSV855 Space Heater Print
SSV908 Money Out Window Print

EXHIBIT A

Co-opCONNECTION

News and Information from SSVEC

August 2010

Calendar

September 6
SSVEC offices closed for Labor Day Holiday
See below for the emergency, after-hours phone number.

September 22
SSVEC Board of Directors Meeting
9:30 a.m. at the SSVEC boardroom at 350 N. Haskell Avenue in Willcox, Arizona. Call to members is at 9:35 a.m.

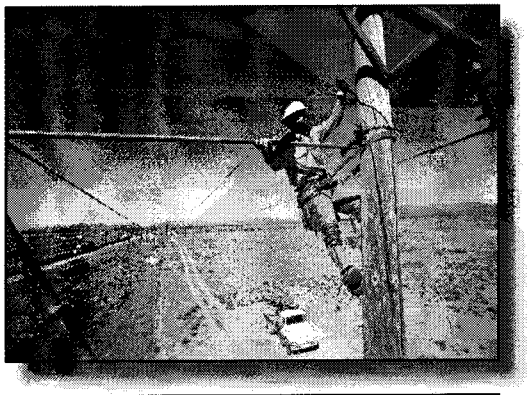
Mark your calendars for the Santa Cruz County Fair, September 17-19 and the Cochise County Fair, September 23-26

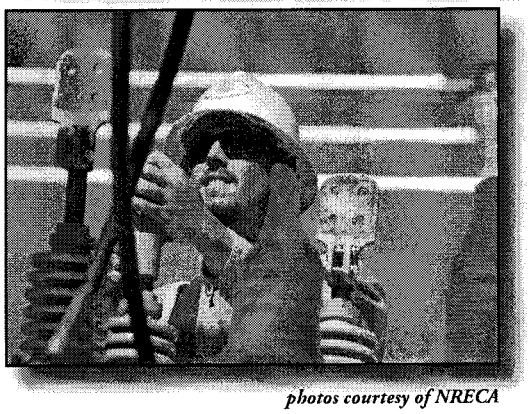
October 20
SSVEC Board of Directors Meeting
9:30 a.m. at the SSVEC operations facility at 1557 Cooperative Way in Benson, Arizona. Call to members is at 9:35 a.m.

November 11
SSVEC offices closed for Veterans Day Holiday
See below for the emergency, after-hours phone number.

Emergency After-Hours Phone Number for SSVEC

(800) 422-3275





photos courtesy of NRECA

Photographs of Co-op Employees at Work

In early May, the National Rural Electric Cooperative Association (NRECA), a trade association for nearly 1,000 electric cooperatives across the nation, conducted a photo shoot of SSVEC employees at work. In an effort to upgrade their collection of stock photos for brochures, displays and presentations, NRECA contracted with a professional photographer to take photos at several cooperatives including Trico Electric Cooperative (Marana, Arizona) and cooperatives in Vermont, Minnesota and North Carolina.

Each cooperative has permission to use the pictures for in-house projects as well. Wayne Crane, public relations manager for SSVEC, said, "The images are excellent. These photos will be a great resource for SSVEC to use for projects such as our annual report, print ads and PowerPoint presentations."

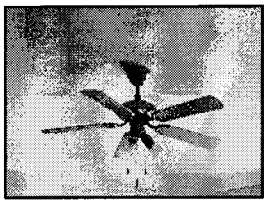
Top photo: Apprentice Lineman Stanley Post completes line work on the co-op's transmission line alongside Interstate 10 west of Willcox.
Bottom photo: SSVEC Journeyman Lineman Tommy Laney at work at the Hawes Substation in Sierra Vista.

Save electricity and stay cool this summer in two easy steps

1. Remember to regularly change out the filter in your air conditioner or heat pump.

When filters become clogged, your heat pump or air conditioner must work harder (and use more energy) to keep you cool. Generally experts recommend checking and changing out filters monthly; but depending on the air quality in your home, it may be necessary to do so more often.

2. Turn off fans when you leave a room.



Fans move air which causes a cooling effect on the skin ***if people are in the room.*** This air movement does not lower the actual air temperature.

If you'd like more information on saving energy, contact your local SSVEC office and enter extension 5510. We'll send you a free copy of the booklet titled "Energy Savings Guide."

Community Update

Movie Night in the Park
September 3, 2010
Huachuca City, Ariz.

Summit Baptist Church in Huachuca City is showing a double feature of "Veggie Tales." Along with the movies, there will be a "Veggie Tales" costume contest for all ages with prizes. The costume contest will begin a half hour before the movies start.

Summit's Movie in the Park is held in the city park just behind city hall and begins at sunset.

Be sure to bring your lawn chair and get ready to have a great time. The popcorn and soda are free!

Southwest Association of Buffalo Soldiers Fundraiser
September 16, 2010
Sierra Vista, Ariz.

A fundraising luncheon will be held at Outback Steakhouse (99 S. Highway 92) from 11:30 a.m. to 1:00 p.m.

Tickets are $20 per person. Proceeds will benefit the Mountain View Colored Officers' Club Restoration Project.

The menu is BBQ chicken and ribs, mashed potatoes, green beans, house salad, ice cream with chocolate sauce, and beverage.

Adding to the festivities, guests are invited to bring their cameras and have their picture taken with a Buffalo Soldier. Some door prizes will be given out during the luncheon

Tickets are available at the Sierra Vista Safeway or the Sierra Vista Chamber of Commerce. For additional information or tickets call Charles Fortenberry, (520) 417-9605 or Gil White at (520) 459-1346 or check our website at **www.swabuffalosoldiers.org.**

Grief Support Group
Charles W. Leighton, Jr. Hospice
Willcox, Ariz.

We'll be starting a new eight-session grief support group that is FREE of charge and open to any adult who has lost a loved one. You are not alone – come join us in sharing experiences, healing and hope (a book will be provided). We meet in Willcox but are interested in also starting a group in the Sunsites area.

Please call Ronnie Squyres at (520) 384-5878 for info and to register. She works part-time for Charles W. Leighton, Jr. Hospice – please leave a message and she will call you back. Or e-mail her at **ronniesq7@hotmail.com.**

Foster Care Review Board Needs Volunteers in Cochise County

The Foster Care Review Board needs volunteers for their review boards in Cochise County. There are currently more than 180 children in foster care in the county. It takes only one day a month to make a difference in the life of a child in foster care.

The Review Boards review the case of each dependent child living in out-of-home placement. They evaluate the progress made in achieving a permanent plan for the child and then make recommendations to the juvenile court judge.

Review Boards meet in Bisbee, Benson and Sierra Vista. We have a significant need for volunteers in the Benson and Sierra Vista areas.

For find more information go to **www.azfcrb.org** or call (520) 388-4300 or toll-free 1-866-558-1791.

Wayne E. Crane, Editor
P.O. Box 820
Willcox, AZ 85644
E-mail wcrane@ssvec.com

Co-opCONNECTION

News and Information from SSVEC

July 2010

Calendar

July 21
SSVEC Board of Directors Meeting
9:30 a.m. at the SSVEC boardroom at 350 N. Haskell Avenue in Willcox, Arizona. Call to members is at 9:35 a.m.

August 18
SSVEC Board of Directors Meeting
9:30 a.m. at the SSVEC boardroom at 311 E. Wilcox Drive in Sierra Vista, Arizona. Call to members is at 9:35 a.m.

September 6
SSVEC offices closed for Labor Day Holiday
See below for the emergency, after-hours phone number.

September 22
SSVEC Board of Directors Meeting
9:30 a.m. at the SSVEC boardroom at 350 N. Haskell Avenue in Willcox, Arizona. Call to members is at 9:35 a.m.

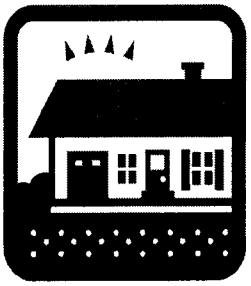
Mark your calendars for the Santa Cruz County Fair, September 17-19 and the Cochise County Fair, September 23-26

Emergency After-Hours Phone Number for SSVEC
(800) 422-3275

Improve home energy efficiency with a zero percent loan from SSVEC

Does your home need a "shot" of energy efficiency?

SSVEC is now offering zero percent interest loans to assist cooperative members who are homeowners in making energy efficiency upgrades. Loans can be used for improving the insulation of a home, upgrading doors or windows or replacing existing heating and/or cooling systems with energy-efficient ones.



The funding for this program comes from the Demand Side Management Surcharge on members' monthly electric bills approved by the Arizona Corporation Commission. Jack Blair, SSVEC's Chief Member Services Officer, says that $200,000 in loan funds is available for the remainder of 2010.

Loan amounts from $2,000 to $20,000 will be considered. The cooperative will complete credit checks (internally and externally). Loans of $10,000 or less will be made for 36 months, and loans of more than $10,000 will be made for up to 72 months.

Blair stresses an individual must own his home in order to be eligible for the program. Work must be completed by a licensed and bonded contractor and only site-built homes are eligible; manufactured homes are **not** eligible.

Blair adds that funding is limited. In anticipation of a large number of members participating in the program, SSVEC will maintain a reservations list.

For more specific information on the program, check SSVEC's website at www.ssvec.org or call your local SSVEC office and ask for extension 3474.

Increased funds for SSVEC's Smart Grid Project

Eileen Brien, SSVEC's Smart Grid program manager, reports that the cooperative's share of a recent Smart Grid grant has increased to approximately $22.1 million. The grant, funded by the Office of Electricity and Energy Reliability in the federal Department of Energy, was submitted by SSVEC, Mohave Electric Cooperative and Southwest Transmission Cooperative.

The increased amount came as a result of Southwest Transmission Cooperative's budgetary revisions to their construction work plan. Brien stressed that this grant requires matching funds and, therefore, so will the increased share of the grant.

SSVEC's original portion of the funds was 48 percent of the total grant; the revised share will be approximately 68.6 percent.

SSVEC recognized by the Solar Electric Power Association.

See back of this sheet!

SSVEC's website is

www.ssvec.org

SSVEC Earns National Award from Solar Association

The Solar Electric Power Association (SEPA), has recognized Sulphur Springs Valley Electric Cooperative (SSVEC) as the top utility in the nation in terms of increased utilization of solar power based on watts per customer during 2009.

David Bane, Key Accounts Manager for the cooperative, accepted the award at SEPA's annual Utility Solar Conference in Denver, Colorado, on May 18.

SEPA analyzes information for the year from hundreds of electric utilities across the nation both in terms of total solar megawatts (MW) added to their systems and the number of watts per customer. The top ten utilities in each category are announced each year at the Conference.

SSVEC – unranked in 2008 – took the top spot in 2009 Top Ten list with 56 solar watts per customer.

Julia Hamm, SEPA President and CEO, stated, "I'd like to personally congratulate Sulphur Springs Valley Electric Cooperative for earning a place in the 2009 Top Ten. The commitment of leaders like CEO Creden Huber is essential to the utility industry's transition to a future that includes solar power as an important part of the solution to the nation's energy issues."

SEPA is an educational and research non-profit focused on helping utilities integrate solar into their operations. It is headquartered in Washington, D.C.

Community Update

Movie Night in the Park
July 16 and 23, 2010
Huachuca City, Ariz.

"Movie Night in the Park" with Summit Baptist Church is taking a twist in July. For the first time we are showing a two part movie. Summit will show part one of "Ben Hur" on Friday, July 16th and then part two of "Ben Hur" will be shown the following Friday, July 23rd. Our movies are shown in the Huachuca City Park and begin at sunset. The popcorn and soda are free!

Bring your lawn chairs and plan on having a great time. The entire Summit Movie Night schedule is on-line at **www.summitbaptistchurch.net**

Chiricahua Ranchmen's Camp Meeting
July 22 through 25, 2010
Chiricahua Mountains, Ariz.

The 65th annual Chiricahua Ranchmen's Camp Meeting begins on Thursday evening and continues through Satruday evening.

"Cowboy Camp Meeting" is an old-fashioned Christian camping experience for the whole family with singing, preaching, food and fellowship.

You are welcome to come and camp or just come for the day. Join us this year in the Chiricahua Mountain foothills on Rock Creek Lane.

For schedule fo times or more information, call Gene at (520) 586-2770 or Bruce at (520) 384-2469.

Willcox Commercial Anniversary Celebration
August 21, 2010
Willcox, Ariz.

The Willcox Commercial, Arizona's oldest store, invites you to celebrate its 130th anniversary on Saturday, August 21. Between 1 p.m. and 4 p.m. there will be cake, punch, live music and lots of door prizes.

Please join us to be a part of living history. Located at 180 N. Railroad Ave. in historic downtown Willcox. Still the safest place to trade since 1880.

Sierra Vista Community Chorus Rehearsals and New Season
August 23, 2010
Sierra Vista, Ariz.

The Sierra Vista Community Chorus, under the direction of Sharon Keene, will begin rehearsals for their seventh annual gospel concert and their annual holiday concert. Rehearsals will begin on Monday, 23 August at 9:30 a.m. and every Monday thereafter. Rehearsals are held at the Ethel Berger Center, 2950 E. Tacoma Street in Sierra Vista.

The chorus welcomes new members, adult men and women up to 80+ years. No auditions are necessary. At this time the chorus is particularly in need of men's voices.

The 2010-2011 concert season opens with a gospel concert which will be presented on Friday, 15 October at 7 p.m. and Saturday, 16 October at 2 p.m. at the Faith Presbyterian Church in Sierra Vista. This concert is inspirational not only in its music, but in its gift to a charity. This year the recipient of the entire offerings from the gospel concerts will be VICaP (Volunteer Interfaith Caregiver Program.) If you have any questions about joining the chorus, chorus activities and schedules please contact either Sharon Keene, Director at 417-2305 or Marilyn Penrose, General Manager at 378-2218.

Wayne E. Crane, Editor
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Sulphur Springs Valley Electric Cooperative, Inc.
A Touchstone Energy® Cooperative

Co-opCONNECTION

News and Information from SSVEC

June 2010

Calendar

June 23
SSVEC Board of Directors Meeting
9:30 a.m. at the SSVEC boardroom at 311 E. Wilcox Drive in Sierra Vista, Arizona. Call to members is at 9:35 a.m.

July 5
SSVEC offices closed for Independence Day Holiday
See upper right hand corner of this sheet for the emergency, after-hours phone number.

July 21
SSVEC Board of Directors Meeting
9:30 a.m. at the SSVEC boardroom at 350 N. Haskell Avenue in Willcox, Arizona. Call to members is at 9:35 a.m.

August 18
SSVEC Board of Directors Meeting
9:30 a.m. at the SSVEC boardroom at 311 E. Wilcox Drive in Sierra Vista, Arizona. Call to members is at 9:35 a.m.

September 6
SSVEC offices closed for Labor Day Holiday
See upper right hand corner of this sheet for the emergency, after-hours phone number.

The Winner Was . . .

Leona Owens of Double Adobe won this year's SSVEC annual meeting grand prize--a 2002 Toyota pickup truck retired from the co-op fleet. Co-op Key Accounts Manager David Bane (right) presents Ms. Owens with keys to the truck.

SSVEC's Web Site is www.ssvec.org

Emergency After-Hours Phone Number for SSVEC
(800) 422-3275

Going on Vacation?

Some tips to reduce your electric bill while you're gone

Vacation time is a great opportunity to relax and enjoy being away from home. But remember -- if you're not careful, you could be using electricity needlessly at home while you're away.

Decide what you can turn off

First, decide what doesn't have to be left "on" while you're away. For example, even though you're not at home, the water heater will automatically operate as the water in the tank cools. **Turn off the water heater!**

If you're going to be gone for two weeks or more, consider emptying, defrosting and unplugging your refrigerator. Be sure to prop the door open to allow air to circulate in the refrigerator cabinet. You may save enough on your electity costs to restock it with fresh basics when you return. And if you leave a refrigerator operating in a house that is "closed up" in warm weather, it will be forced to run longer and more often using more energy than it otherwise would.

What should you leave on?

Turn your air conditioner off. This will assure it uses no electricity.

If you have houseplants that would suffer from the heat, or if someone will be checking on your house from time to time, you may want to leave your cooling system on. If so, adjust the thermostat to a higher setting than usual.

You may also want to leave a lamp or two on a timer to give the impression that someone is at home.

Other ways to save

You can turn the heater off on a pool or spa and reduce the filter time to a minimum.

If you have a waterbed with a heater, unplug the heater.

Many appliances such as microwaves, computers or televisions have "instant on" features which draw some power at all times. Unplug these appliances and you'll save energy as well as prevent possible damage related to storms or power surges.

Community Update

Solar Cook-Off and Expo
June 12, 2010
Bisbee, Ariz.

Find out how to cook with the sun from 8 a.m. to 1 p.m. at the Bisbee Farmers Market at Vista Park. Get started cooking with the sun with solar ovens and solar cookbooks for sale.

Enter the raffle to win a Sun Oven or solar cookware or solar cookbooks. Find out what the sun can do for you from solar contractors with info on solar electricity, hot water, pumps and cooling.

For more information contact Baja Arizona Sustainable Agriculture at (520) 378-2973 and valerie.mccaffrey@bajaaz.org.

Game Day and Luncheon
June 12, 2010
Sierra Vista, Ariz.

The Sierra Vista Woman's Club will host a Game Day and Luncheon from 10:00 a.m. to 2:00 p.m. at Our Lady of the Mountain Catholic Church to raise funds for local charities and scholarships. Bring your bridge, mahjong, tripoli, or canasta group, or any other fun game you play.

Tickets are $20.00 each which includes lunch, beverage, dessert, and door prizes. There will be set-ups for bridge, for all others please bring your own game requirements.

For tickets call Arlene at 378-1313, Mimi at 378-0094, Bonnie at 803-8809, or Nancy at 459-2040. Tickets are also available at Safeway.

Golf Tournament Fundraiser
June 19, 2010
Benson, Ariz.

Catholic Community Services and Cochise County Senior Meals Fundraising Committee will be hosting their 6th Annual Senior Meals Golf Tournament at Turquoise Hills Golf (800 E. Country Club Road).

All monies raised will assist Catholic Community Services in maintaining the meals program in southeastern Arizona, which currently benefits approximately 250 seniors per day.

Shotgun starts at 8:00 a.m. and 1:00 p.m. Entry fee is $40.00 per person (includes cart and lunch). Tee box sponsorships available for $100.00

Events for the day will include a four man scramble, prizes for closest to the pin, longest drive (men and women) and a prize of $200.00 for a hole-in-one. Raffles will be held throughout the day. For more info, contact Benson Senior Center (520) 586-9775 or Marilyn at (520) 586-2322.

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Co-op Connection

News and Information from SSVEC

March 2010

Calendar

March 24
SSVEC Board of Directors Meeting
9:30 a.m. at the SSVEC boardroom at 350 N. Haskell Avenue in Willcox, Arizona. Call to members is at 9:35 a.m.

April 28
SSVEC Board of Directors Meeting
9:30 a.m. at the SSVEC boardroom at 350 N. Haskell Avenue in Willcox, Arizona. Call to members is at 9:35 a.m.

April 29
SSVEC's 72nd Annual Meeting
Registration to establish a quorum at 6:00 p.m. Business meeting begins at 7:00 p.m. Buena High School in Sierra Vista.

May 26
SSVEC Board of Directors Meeting
9:30 a.m. at the SSVEC boardroom at 350 N. Haskell Avenue in Willcox, Arizona. Call to members is at 9:35 a.m.

May 31
SSVEC offices closed for Memorial Day Holiday
See back of this sheet for the emergency, after-hours phone number.

Net Metering Is Here!

Members can now get credit for electricity produced by their photovoltaic or wind units

The Arizona Corporation Commission has approved SSVEC's net metering program.

Key Provisions

The key points of the Net Metering Program:

1. The program is open to all members who have a grid-connected photovoltaic (PV), wind or any other renewable energy system. Participation in the program is voluntary.
2. There is a monthly cost of $2.70 to participate. (This amount over a number of years covers the metering costs for the net metering program.)
3. During a month any usage of grid power is off-set kilowatt-hour (kWh) for kilowatt-hour by energy produced by the PV or wind system. Any PV or wind power generated beyond that used in a month can be carried forward at the cooperative's retail price to the next month.

"The customer receives full value of the energy he produces. Then once a year the account is balanced to zero and at that point any excess kWh's are paid at the avoided cost."

Annual "True-Up"

Once a year (either in March or September depending on which the member chooses) there is a "true-up" or payment to members who are carrying a credit. The kilowatt-hour costs for the "true-up" are calculated at the avoided (or wholesale power) cost. For this past year that amount has been $0.0491 per kWh.

A direct mail regarding the net metering option has been sent to each member who has installed a photovoltaic solar (or wind) system and is, therefore, eligible to participate in the net metering program.

More Information

For more information on net metering, check the SSVEC Web site at **www.ssvec.org**.

SSVEC Phone Numbers

Benson	586-2238
Bowie	847-6000
Cascabel	212-6001
Elfrida	642-3475
Patagonia	394-2051
Pearce	826-6000
San Simon	845-6000
Sierra Vista	458-4691
Sunizona	824-6000
Willcox	384-2221
Emergency after-hours	800-422-3275

SSVEC's Web Site is www.ssvec.org

Community Update

Santa Cruz County Energy Expo
March 27, 2010
Patagonia, Ariz.

The third annual Energy Expo will be held from 10:00 a.m. to 4:00 p.m. at Patagonia High School.

Come learn about solar and wind energy systems, solar hot water and pool heating, solar water pumps, solar louvers, alternative building materials, energy efficient windows and doors, shutters and sunscreens, skylights, LED lighting, radiant floors, rainwater harvesting, permaculture, home energy audits, energy conservation, and more.

Congresswoman Gabrielle Giffords office will be presenting a seminar titled 'Solar Power 101.'

Admission is free and there will be live music and raffle prizes. Every attendee will receive one free raffle ticket.

For more information call (520) 455-5137 or e-mail bugle2@earthlink.net

Wesleyan Preschool Chili Cook-Off
April 24, 2010
Willcox, Ariz.

Willcox United Methodist Church is sponsoring a chili cook-off, located on 124 S. Curtis Ave. (across the street from the Wesleyan Preschool).

The cook-off will begin at 10:00 a.m. and end at 2:00 p.m. Lunches will be available at $5.00 per person.

Also raffle items every half hour! Raffle tickets are $1.00 each.

Note to events and publicity chairmen--

We can publish an announcement of local community and non-profit events. Be sure to submit items at least two months prior to the event.

Emergency After-Hours Phone Number for SSVEC

(800) 422-3275

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Co-op Connection

News and Information from SSVEC January 2010

Calendar

January 1
SSVEC offices closed for New Year's Day Holiday
See back of this sheet for the emergency, after-hours phone number.

January 18
SSVEC offices closed for Martin Luther King, Jr. Holiday
See back of this sheet for the emergency, after-hours phone number.

January 20
SSVEC Board of Directors Meeting
9:30 a.m. at the SSVEC boardroom at 311 E. Wilcox Drive in Sierra Vista, Arizona. Call to members is at 9:35 a.m.

February 15
SSVEC offices closed for Presidents Day Holiday
See back of this sheet for the emergency, after-hours phone number.

SSVEC's Web site is
www.ssvec.org

Keeping Warm and Saving Energy this Winter

Keeping warm during the cold winter months and saving energy takes some effort (and a little investment). But that effort and investment can pay off when your electric bill arrives.

Shut out the cold!

The key to being comfortable during the winter months is to shut out the cold. That means keeping the warm air in your house and the cold air out.

Use caulking to make sure there are no air leaks or gaps around dryer vents or plumbing pipes entering your house. Check that the bottom of the door has a gasket or "sweep" to seal the threshold properly. Put weather-stripping around windows or door frames to seal any gaps around windows or door frames.

Consider replacing older, wooden exterior doors with insulated steel ones and upgrading your windows. Experts recommend thermal dual or triple pane windows.

If you can't afford the expense of replacing windows at this time, consider purchasing clear plastic to provide a barrier to the cold or cut large sheets of styrofoam to fit against the window. This will insulate and reduce heat loss from your home.

Finally, add insulation to your attic and even your walls, if possible. This will help keep the heat in during the winter and the heat out in the summer.

Adjust the heat!

Obviously turning down the thermostat can save energy, but there are some ways to do so without sacrificing comfort.

Experts suggest a daytime temperature setting of 70 degrees F. and a nighttime setting of 66 degrees F.

Using your ceiling fan you can get the benefit and comfort of the heat that usually hovers at the ceiling. Just be sure to set the fan to "reverse" so that the blades bring the air up from below and disperse the warmer air along the walls and back to the living space. (Standing under the fan and looking up, the blades will move in a clockwise direction.)

Finally, if you invest in a programmable thermostat, you can enter the temperature settings for the various times of the day. Your heating system will automatically but gradually adjust the temperature up or down. For example, early in the morning the heat will increase so that you wake up to a warm house. It can automatically drop to a slightly cooler temperature during the day when no one is home and raise the temperature again before everyone returns for the evening.

Use a space heater sparingly!

An electric space heater is great to take the chill off a room or to provide temporary heat to an isolated area. But these heaters can be expensive to run! You'll pay about 20 cents an hour.

At eight hours a day, that's 240 hours in a month or a total of **$48.00 added to your monthly electric bill.**

If you use a space heater, run it no longer than is necessary and turn it off when you leave the room.

Community Update

Cochise Cowboy Poetry and Music Gathering
February 12 to 14
Sierra Vista, Ariz.

Our theme this year is "Cowboys and Sweethearts."

More than 50 poets and musicians will entertain. Free sessions on Saturday 10:00 a.m. to 5:00 p.m. Three headline shows Friday at 7:00 p.m., Saturday at 7:00 p.m. and Sunday at 1:00 p.m.

Tickets on sale at our Web site (www.cowboypoets.com) and in Sierra Vista at Spur Western Wear, ACE Hardware, Safeway, National Bank of Arizona, and the Sierra Vista Convention and Visitors' Bureau.

Cochise Cowboy Poetry and Music Gathering Hotline--(520) 249-2511.

High Desert Conference
February 25 and 26
Sierra Vista, Ariz.

The 17th Annual High on the Desert Gardening and Landscaping Conference will be held at the Windemere Hotel and Conference Center (2047 S. Highway 92). The Conference benefits all gardeners, novice and seasoned, with more than 20 sessions focusing on food production, landscaping with native plants, and environmental stewardship. Scholarships are available.

For more information, please call (520) 458-8278, ext. 2141 or visit our Web site (www.ag.arizona.edu/cochise/mg/).

1880's Historic Costume Ball
February 27
St. David, Ariz.

The 7th Annual 1880's Historic Costume Ball will be held from 6:30 to 10:00 p.m. at St. David School, Highway 80. The Grand March will begin at 7:00 p.m.

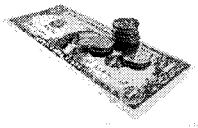
A $5 donation includes admission and period refreshments. Also available: sarsaparilla, photographer and photo backdrop.

Period dress is preferred, but not required. Four $50 prizes will be awarded for the best costumes for a man, woman, couple, and child.

Sponsored by St. David Heritage and Cultural Arts Society. Proceeds benefit St. David Schools' Historic School and Auditorium Rehabilitation Project. For information, call Judith at (520) 720-4325 or Sue at (520) 720-4407.

Capital Credits

Money Returned to Cooperative Members



You may know that SSVEC members are part-owners of their electric cooperative. But what exactly does that mean?

Your monthly electric bill payment covers not only the cost of energy, but electric equipment to bring you power, salaries of the employees and funds to pay back principal and interest on borrowed money. At the end of the year margins (any money in excess of expenses) is calculated. The margins are then allocated, that is entered on the books of the cooperative, for each member based on the amount of electricity he has purchased. This money is known as capital credits and is each member's "ownership" of (or equity in) SSVEC.

This equity is vital to keeping the cooperative operating and rates stable.

As the financial situation of the cooperative allows, the SSVEC Board of Directors approves (usually each year) a portion of the accumulated capital credits to be returned to members. The Directors designate a specific dollar amount to be paid from a particular year or years of allocations.

Small amounts of $20 or less are usually applied to any active account. Amounts greater than $20 are usually issued in check form. Members who no longer have an active account are issued a check.

Because the return of capital credits is on a cycle of approximately 22 years, it is important for members who may leave the area to provide the cooperative with a current mailing address. Each year there are several thousand members whose checks are returned because the address the cooperative has on file is not correct. In those cases SSVEC advertises the names of individuals who have unclaimed funds so that they can notify the cooperative.

Emergency After-Hours Phone Number for SSVEC

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Sulphur Springs Valley Electric Cooperative, Inc.
A Touchstone Energy® Cooperative

Co-op Connection

News and Information from SSVEC — December 2009

Calendar

November 26-27
SSVEC offices closed for Thanksgiving Holiday
See back of this sheet for the emergency, after-hours phone number.

December 16
SSVEC Board of Directors Meeting
9:30 a.m. at the SSVEC boardroom at 350 N. Haskell Avenue in Willcox, Arizona. Call to members is at 9:35 a.m.

December 24-25
SSVEC offices closed for the Christmas Holiday
See back of this sheet for the emergency, after-hours phone number.

January 1
SSVEC offices closed for New Year's Day Holiday
See back of this sheet for the emergency, after-hours phone number.

SSVEC's Web site is
www.ssvec.org

TOGETHERWESAVE.COM

Program from Touchstone Energy can help you save energy and money

SSVEC along with more than 600 other electric cooperatives are part of the Touchstone Energy alliance. The latest program developed by this alliance is titled "Together We Save."

Information available at the Internet site

The "Together We Save" Internet site (**www.togetherwesave.com**) contains tips about how to save energy in your home. It includes a visual tour of an average home to highlight many of those tips.

What else does the site contain?

You'll find a section titled "Add Up Your Savings," a calculator that allows you to determine just how much you can save by taking specific actions. "Watch and Learn" are video clips on energy-saving measures.

> *Touchstone Energy's 'Together We Save' campaign illustrates numerous ways our member-consumers can reduce their energy bills – and thereby save themselves money – by implementing a variety of changes around their homes and businesses.*
>
> *Jim Bausell*
> *Chief Operating Officer of Touchstone Energy*

And "Energy Savings Applications" goes into detail of topics such as upgrading appliances, adjusting your thermostat and water heater, turning off lights and electronics, adding insulation and compact fluorescent lights and replacing your home heating and cooling system.

What if I don't have Internet access?

If you don't have a computer, you can still get the basic information from "Together We Save." From now until the end of the year, we will provide information in paper form free of charge to members who request it.

If you'd like to have a packet of the "Energy Savings Applications," simply call (520) 384-5510 or (520) 515-3474 and request that the information be sent to you by mail.

Best Wishes for the New Year!

May you, your family and friends have a safe, fun-filled holiday season and a happy and prosperous new year.

from the Board, Management and Employees of SSVEC

Cooperative Update

Winter Festival Concert December 11, 2009 Sierra Vista, Ariz.

The The Sierra Vista Community Chorus under the direction of Sharon Keene will present this concert free of charge at the Buena Performing Arts Center at 7:00 p.m.

No tickets are necessary. However, in the spirit of the holiday season a new unwrapped toy to support the Sierra Vista Fire Department is suggested and would be appreciated as a donation. The toys donated will be distributed throughout the greater Sierra Vista area to ensure a happy holiday for those children in need.

Bring the family to enjoy a visit from Santa, Mrs. Claus and their helpers and listen to all the wonderful festive winter holiday music.

1880's Historic Costume Ball December 12, 2009 Tombstone, Ariz.

The Ball will be held at the Walter J. Meyer Gymnasium in Tombstone. Proceeds will benefit Wild West Tombstone Detachment, Marine Corps League, National Day of the Cowboy, and the Tombstone 4th of July celebrations.

Prizes and an evening of authentic Western dancing for all ages! Costume rentals available.

Presented by Cowboy Up! For more information, call Beverly McAlister (520) 403-7314.

Parents: Co-op Youth Programs Coming Up

YES Fair

The annual Youth Engineering and Science (YES) Fair will be held March 2, 3 and 4, 2010, at the Windemere Hotel and Conference Center in Sierra Vista.

Students in grades 5 through 12 are eligible to particpate for prizes and awards. Projects can earn students $25 to $500 depending on the award level and age division of the student.

The top two high school projects will earn students all-expense paid trips to San Jose, Calif., this May for the International Science Fair.

Deadline for registering projects is February 1.

See the YES Fair Web site at **www.yesfair.com** for more information and an electronic registration form.

SSVEC Foundation Scholarship Program

The deadline for SSVEC's scholarship program for high school seniors graduating in the spring of 2010 is March 1, 2010.

A total of 20 scholarships worth $1,000 each are available to applicants who are in the upper 20 percent of their class or top 10 students academically whichever number is greater.

More information and an application can be found at **www.ssvec.org/programs/youthScholarship.php**.

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Co-op Connection

News and Information from SSVEC

October 2009

Calendar

October 21
SSVEC Board of Directors Meeting
9:30 a.m. at the SSVEC boardroom at 1557 Cooperative Way in Benson, Arizona. Call to members is at 9:35 a.m.

November 11
SSVEC offices closed for Veterans Day Holiday
See back of this sheet for the emergency, after-hours phone number.

November 18
SSVEC Board of Directors Meeting
9:30 a.m. at the SSVEC boardroom at 350 N. Haskell Avenue in Willcox, Arizona. Call to members is at 9:35 a.m.

November 26-27
SSVEC offices closed for Thanks-giving Holiday
See back of this sheet for the emergency, after-hours phone number.

SSVEC's Web site is
www.ssvec.org

Look for the Energy Star

It's Your Guarantee of Energy Efficiency!

Now more than ever, cooperative members are looking for ways to save on their monthly electric bills. And purchasing appliances that are energy-efficient is a great way to reduce those bills for months and years to come.

Energy Star Rating

If you're shopping for a new refrigerator, air conditioner, dishwasher or windows for your home, check for the Energy Star label. It's your assurance that the item will help you save energy and dollars on your monthly bill.

For example, refrigerators with the Energy Star label, "use high efficiency compressors, improved insulation and more precise temperature and defrost mechanisms to improve energy efficiency."

In addition, the label also means that the particular model uses "20 percent less energy than required by current federal standards and 40% less energy than conventional models sold in 2001."

This information is taken from the Energy Star Web site at **www.energystar.gov/index.cfm?c=refrig.pr_refrigerators.**

And that old fridge?

Well, it still runs . . . .

If the old refrigerator wasn't all that efficient in your kitchen, just think how much more **inefficient** it would be if you put it outdoors on your carport or in your garage!

Yet, that's what some people do. So instead of saving money by relying on the new energy-efficient appliance, they are paying even more money just to cool a couple of six-packs of soda and some cold cuts!

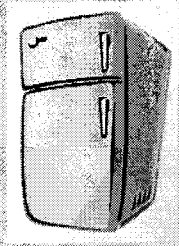
Get rid of the old refrigerator; it's a definite "energy hog."

For tips on disposing or recycling your old refrigerator, see the Web site **www.energystar.gov/index.cfm?c=recycle.pr_refrigerator_rec.**

Calculate Energy Savings with a New Refrigerator

Want to know exactly how much energy you can save with a new refrigerator? Check out the following Energy Star Web site: **www.energystar.gov/index.cfm?fuseaction=refrig.calculator.**

By entering the model number of your present refrigerator or by answering a few questions about it, the program can automatically provide you with the savings you can expect with an energy-efficient Energy Star refrigerator.



Co-op Members:

Beware of Phone Scams!

According to a recent report from the National Rural Electric Cooperative Association, co-op consumers in some states are receiving phone calls from fraudsters posing to be from the co-op and asking the consumer to provide credit card or other financial account information and personally identifiable information over the phone.

(Co-ops are not alone here, this is hitting utilities of all stripes.)

There are at least two versions of this scam -- one is to say the consumer owes on his/her account and will have service shut-off unless payment information is provided immediately.

The other appears aimed more specifically at seniors. The caller claims the consumer can receive Federal stimulus dollars to pay their utility bills or some sort of a bill credit but the consumer must first provide his/her personal information (e.g. Social Security Number and utility account number).

SSVEC does not make unsolicited phone calls to request such information. If you receive a call and you are suspicious, simply hang up and call your local SSVEC office (see numbers listed below) to determine whether the call was actually from your cooperative.

For more information on identify theft, check the Federal Trade Commission's Web site at **http://www.ftc.gov/bcp/menus/consumer/data/idt.shtm.**

SSVEC Phone Numbers

Benson	586-2238
Bowie	847-6000
Cascabel	212-6001
Elfrida	642-3475
Patagonia	394-2051
Pearce	826-6000
San Simon	845-6000
Sierra Vista	458-4691
Sunizona	824-6000
Willcox	384-2221
Emergency after-hours	**800-422-3275**

Cooperative Update

Fall Craft Fair
October 17, 2009
Sierra Vista, Ariz.

The High Desert Crafters are presenting their 10th Annual Fall Craft Fair from 8:30 a.m. to 2:00 p.m. on Saturday at the Windemere Hotel and Conference Center, 2047 S. Hwy. 92.

There will be fine art, knitting, crochet items, aprons, cards, jewelry, photography, quilting, red hat items, machine embroidery , crocheted water bottle holders and so much more. There is a free drawing every half hour, but you must be present to win. Bring your friends and come shop for the holidays.

"The Event" Fundraiser
November 7, 2009
Sierra Vista, Ariz.

Wine-tasting fundraiser for the Boys and Girls Club of Sierra Vista. More than 200 wines will be available as well as three grand prize drawings. The event will be held at the Rendezvous (40 Avenida Escuela) from 3:00 to 6:00 p.m.

Tickets are $35 per person for advance sales and $45 at the door.

Tickets may be purchased at Safeway, ACE Hardware and the Boys and Girls Club of Sierra Vista.

Desert Community Arts
November 15, 2009
Pearce-Sunsites, Ariz.

The Bisbee Chorus will be performing for the Desert Arts at the Senior Center at 3:00 p.m.

Admission is $5.00 or DCA Membership.

Holiday Art Walk
November 27-28, 2009
Patagonia, Ariz.

Ninth Annual Holiday Art Walk from 10 a.m. to 4:00 p.m. on the Friday and Saturday after Thanksgiving.

For more info, see **www.patagoniaaz.com** or call (520) 394-0060.

Magic of Christmas
November 27-29, 2009
Patagonia, Ariz.

Come to the Mountain Empire Thanksgiving weekend when The Patagonia Woman's Club has their annual "Magic of Christmas" in historic Cady Hall on Duquesne St. from 10:00 a.m. to 4:00 p.m. each day. On Sunday, Nov. 29th "The Kids Corner Only" for the kids to do their shopping and Santa Claus comes to Cady Hall to visit the children from noon to 4:00 p.m. Be sure to bring a camera along for some wonderful pictures.

Beautiful decorated Christmas trees are auctioned, holiday decorations for sale, gift items and baked goods, jams and jellies can be purchased. Follow the signs and banners to "The Magic of Christmas" in Patagonia.

Magic of Christmas is the only event the Patagonia Woman's Club does each year as a fundraiser for their scholarship awards given to two graduating seniors from Patagonia High School the following spring.

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Emergency After-Hours Phone Number for SSVEC

(800) 422-3275

Co-op Connection

News and Information from SSVEC

September 2009

Calendar

September 7

SSVEC offices closed for Labor Day Holiday

See back of this sheet for the emergency, after-hours phone number.

September 23

SSVEC Board of Directors Meeting

9:30 a.m. at the SSVEC boardroom at 350 N. Haskell Avenue in Willcox, Arizona. Call to members is at 9:35 a.m.

Stop by our booths at this year's county fairs.

The Santa Cruz County Fair in Sonoita is September 18 through 20 and the Cochise County Fair in Douglas is September 24 through 30.

October 21

SSVEC Board of Directors Meeting

9:30 a.m. at the SSVEC boardroom at 1557 Cooperative Way in Benson, Arizona. Call to members is at 9:35 a.m.

SSVEC's Web site is **www.ssvec.org**

Low Cost and No Cost Ways to Save Energy

If you like saving money (and who doesn't), you may be interested in these low cost (and no cost) energy saving tips.

Don't get burned with hot water

Extremely hot water can cause injury through scalding. So to be safe and to save energy, turn down the thermostat on your water heater. Experts recommend setting it at about 120 degrees Fahrenheit.

Change that filter . . . often

Whether you're running your furnace, heat pump or air conditioner, the unit will run more effi ciently (and use less energy) if you change the fi lter and change it often. Most heating and cooling experts suggest changing it at least once a month.

Let the sun shine in if it's cold weather

Take advantage of your home's windows as solar collectors during the day in cold weather. You'll be able to take advantage of the sunshine by opening shades and draperies. Close them at night to keep the heat in. During summer months, do the opposite-- keep shades and draperies closed as much as possible during the day to keep heat out.

Invest in a solar clothes dryer

This device is also known as a "clothes line." You'll save considerable energy by hanging your laundry outside during nice weather.

Buy compact Fluorescent bulbs

Conventional light bulbs are an excellent heat source that also happen to produce light. For about one-fourth the energy of a conventional bulb, a compact fluorescent will last up to ten times as long.

They are more expensive than regular incandescent bulbs, but the energy savings more than cover the cost over the life of the bulb.

And the cost of compact fl uorescents is continuing to drop. Price them at your general or discount stores.

For ways to save energy (gasoline) with your car . . .

And if you're interested in tips to save gasoline and improve mileage with your car, see one of the following Web sites:

www.epa.gov/otaq/consumer/17-tips.htm
www.fueleconomy.gov/feg/drive.shtml
www.bankrate.com/brm/news/auto/fuel-effi cient/5.asp

Cooperative Update

Truck and Tractor Pulling Events October 2 and 3 Willcox, Ariz.

Friday at 5:30 p.m. antique tractors and street stock. Saturday at 2:00 p.m. antique tractors; 3:00 p.m. mini-rods and modified tractors and street stock pick-ups.

Admission $5 per person (under 10 free). Concessions are available on site at 450 E. Grant Street in Willcox.

For more info, call (520) 507-4959.

Unique Boutique Bazaar October 16 and 17 Sierra Vista, Ariz.

The 25th annual bazaar sponsored by the Palo Verde Palettes will have a wide variety of handcrafted items for your holiday shopping to include decorative and functional painted pieces, greeting cards, unique jewelry, dolls, ceramics, ornaments, denim throws, bead purses, coiled fabric baskets, one of a kind hand bags, candles, sachets, air freshners. Something for everyone! Baked items will also be available.

The event will be held at Sierra Suites (391 E. Fry Blvd.) from 9:00 a.m. to 7:00 p.m. on Friday and from 9:00 a.m. to 5:00 p.m. on Saturday.

Sierra Vista Chorus Concert October 16 and 17 Sierra Vista, Ariz.

The Chorus presents its 6th annual free gospel concert at Faith Presbyterian Church (205 E. Choctaw Drive) at 7:00 p.m. on Friday and on Saturday at 2:00 p.m.

A free will offering will be donated to the AMVET. Memorial Carillon Program.

The Carillon will be installed at the Southern Arizona Veterans Memorial Cemetery in Sierra Vista.

Fundraising Yard Sale October 17 Sierra Vista, Ariz.

The Sierra Vista Volunteer Interfaith Caregiver Program is having a fund-raising yard sale from 7:00 a.m. to noon. The sale will be held at 2002 Chantilly Drive.

All proceeds will benefit VICaP, a non-profit agency that serves the elderly and disabled in the western half of Cochise County.

For more information call (520) 459-8146.

Information from Benson Area Food Bank

The Benson Area Food Bank has received a grant that will now allow families with young children to get a three-day supply of food plus diapers, at no charge.

This program is available to all who live within the area served by the Benson Area Food Bank and will run until July of 2010.

The program called, "Child Food-Box Plus," is designed to feed children from birth to five years of age. THERE ARE NO DES REQUIREMENTS. Just visit the food bank at 370 S Huachuca Street (next to the library). The food bank is open Monday thru Friday, 9:00 a.m. to 11:30 a.m.

Questions can be answered at (520 586-7916) or come visit during business hours.

Emergency After-Hours Phone Number for SSVEC

(800) 422-3275

Sulphur Springs Valley Electric Cooperative, Inc.
A Touchstone Energy® Cooperative

Co-op Connection

News and Information from SSVEC August 2009

Calendar

August 19
SSVEC Board of Directors Meeting
9:30 a.m. at the SSVEC boardroom at 311 E. Wilcox Drive in Sierra Vista, Arizona. Call to members is at 9:35 a.m.

September 7
SSVEC offices closed for Labor Day Holiday
See back of this sheet for the emergency, after-hours phone number.

September 23
SSVEC Board of Directors Meeting
9:30 a.m. at the SSVEC boardroom at 350 N. Haskell Avenue in Willcox, Arizona. Call to members is at 9:35 a.m.

October 21
SSVEC Board of Directors Meeting
9:30 a.m. at the SSVEC boardroom at 1557 Cooperative Way in Benson, Arizona. Call to members is at 9:35 a.m.

SSVEC's Web site is
www.ssvec.org

SSVEC offers "Budget Billing"

If you experience seasonal high bills (because of large cooling costs for the summer or heating costs for the winter), SSVEC's Budget Billing can help "level" your electric bills for the year.

The program spreads the costs for your electric service throughout the year. **It is NOT an assistance or a discount program; it merely averages your electric bills so you pay the same amount each month.**

You must have at least one year of electric service history to sign-up for Budget Billing. If you do, SSVEC will average the electric bills for the past 12 months to establish a monthly billing amount.

During the year you will pay more than your actual usage some months, and less than your actual usage other months. But you will pay the same amount month to month.

Once a year the billing system checks your actual usage to determine whether the Budget Billing amount needs to be recalculated. If during the year, you paid too much, your monthly assessment will be lowered; if you have not paid enough, your monthly assessment will increase for the next year.

You can sign up for Budget Billing at any SSVEC office, or you can request a form be mailed to you.

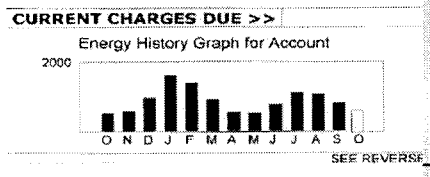
Please note: There is no cost to participate in the Budget Billing program, and you can "opt out" of the program at any time. However, if you choose to leave the program, you will be responsible for paying any amounts owed to the cooperative at that time.

And if you'd like to eliminate sending in a monthly check for payment, consider SSVEC's Automatic Credit Card and Bank Draft Reduction. This program allows you to electronically pay your electric bill from your bank account. If you combine this with Budget Billing, your payment will be the same amount month to month so you'll know the amount of each month's automatic payment.

Check the graph on your monthly electric bill

Your monthly electric bill from SSVEC has a bar graph printed on the left middle section of the page. You can see at a glance your electricity usage on your account for the past twelve months. This can help you determine whether you could benefit from Budget Billing (explained above). In this example, there is a good deal of difference in the monthly usage during the year, and Budget Billing might be a helpful option.

In addition, you can compare your electricity usage from the past month (white bar on the right) with the usage for the same month a year ago (black bar on the left).



Cooperative Update

"Sing and Celebrate" Community Hymn Festival
September 13, 2009
Sierra Vista, Ariz.

Come to the second annual festival and sing traditional and contemporary hymns, accompanied by pipe organ, bass ensemble and volunteer choir. The festival will be directed by Roger Bayes, Sierra Vista Symphony conductor.

The event begins at 2:00 p.m. at St. Andrew the Apostle Church at 800 N. Taylor Drive.

Admission is free. A freewill offering will be received to benefit the Salvation Army.

Sierra Vista Fiddle Contest
September 19, 2009
Sierra Vista, Ariz.

Enjoy the sounds of good old-fashioned fiddle music at the fifth annual Sierra Vista Fiddle Contest, from 10:00 a.m. to 5:00 p.m. at Veterans' Memorial Park.

Admission is free! Bring a lawn chair and get ready for a fun day of music competition.

It's the only solar-powered fiddle contest in the U.S. thanks to a system funded by SSVEC.

The contest is organized by and benefits the Cochise County Youth Orchestra, who will provide an energetic lunchtime performance.

Food concessions will be provided by Buena Bands.

For more info, visit **www.ccyo.info** and click on "fiddle contest" or call Jim Jones at (520) 678-0397.

To have your community or nonprofit event listed, submit the information to Wayne Crane at the address or e-mail in the lower left corner of this page.

Information must be submitted at least two months prior to the event.

Request for a little help regarding Co-op History

SSVEC is in the process of gathering information for a detailed history of the cooperative's beginnings in a number of communities.

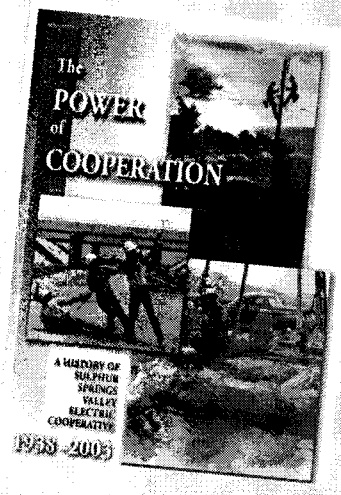
In particular, we're interested in the first powerlines and electric service by SSVEC to Fry (later to become Sierra Vista), Benson and Sonoita/Patagonia.

If you or a relative can remember a time without electricity and then the arrival of electric power from the cooperative, we'd be interested in hearing about those times.

Or if you have photos or other materials documenting the event, we'd like to borrow them in order to make copies. (And if we use them in any published information, we will provide a note crediting you as the source.)

If you can help us out, please contact Wayne Crane in Willcox at 384-5510 (or simply call any cooperative office and put in extension #5510). You may also reach him at **wcrane@ssvec.com**

And we have additional copies of our 65th anniversary history booklet, *The Power of Cooperation*, that was mailed to each cooperative member in 2003. However, if you didn't get one or if you'd like to have another copy, just contact Wayne Crane at the phone numbers or e-mail address above.



Need a speaker for your club, organization or classroom?

Call SSVEC!

If you're looking for a speaker for a program or a classroom presentation, consider a representative from your electric cooperative.

SSVEC can provide (at no charge) an individual to present a program on a variety of topics.

These topics include power generation and distribution, electrical safety, energy management/conservation, SSVEC youth programs and the cooperative way of doing business.

If you have a more specialized topic, contact SSVEC and we'll see if we can arrange a speaker.

If you're interested in scheduling a speaker, call Roxanne Williams at 515-3471 in Sierra Vista or Wayne Crane at 384-5510 in Willcox.

Emergency After-Hours Phone Number for SSVEC

(800) 422-3275

Wayne E. Crane, Editor
P.O. Box 820
Willcox, AZ 85644
E-mail wcrane@ssvec.com

Sulphur Springs Valley Electric Cooperative, Inc.
A Touchstone Energy® Cooperative

EXHIBIT B

SSVEC Earns Top Honor From Solar Association

"I'd like to personally congratulate Sulphur Springs Valley Electric Cooperative for earning a place in the 2009 top 10. The commitment of leaders like CEO Creden Huber is essential to the utility industry's transition to a future that includes solar power as an important part of the solution to the nation's energy issues."

—Julia Hamm
SEPA President and CEO

The Solar Electric Power Association (SEPA), an educational and research nonprofit organization focused on helping utilities integrate solar into their operations, has recognized Sulphur Springs Valley Electric Cooperative (SSVEC) as the top utility in the nation in terms of increased use of solar power based on watts per customer during 2009.

SEPA analyzes information for the year from hundreds of electric utilities across the country, both in terms of total solar megawatts (MW) added to their systems and the number of watts per customer.

The top 10 utilities in each category are announced at the annual conference.

SSVEC—which was unranked in 2008—took the top spot in the 2009 top 10 list with 56 solar watts per customer.

Also making the leap into the top 10 this year were the city of Santa Clara/Silicon Valley Power (22.3 watts per customer) and Southern California Edison (15.3 watts per customer).

"We're very excited to see some new names on this year's list, along with the traditional solar utility leaders," said SEPA President and CEO Julia Hamm. "We congratulate all our top 10 utilities for their ongoing commitment to solar power—an energy source that's both clean and increasingly cost effective.

"I'd like to personally congratulate Sulphur Springs Valley Electric Cooperative for earning a place in the 2009 top 10. The commitment of leaders like CEO Creden Huber is essential to the utility industry's transition to a future that includes solar power as an important part of the solution to the nation's energy issues."

Huber expressed appreciation for the recognition.

"We have worked to provide information regarding solar energy and incentives for our members to install photovoltaic systems at their homes and businesses and through our schools' solar shade projects," Huber said. "This award confirms these efforts as the cooperative looks to renewable energy options to help meet the increasing demand for electricity here in Southeast Arizona."

Sulphur Springs Valley Electric Cooperative Key Accounts Manager David Bane accepts the Solar Electric Power Association's award presented by Julia Hamm, president and CEO of SEPA, at the Utility Solar Conference in Denver on May 18.

Jack Blair, SSVEC's chief member services officer, said member response to SSVEC's efforts to encourage the installation of photovoltaic systems has been overwhelming.

"The rebate incentive program has been so successful that the cooperative has implemented a reservation list, which we're moving through as fast as possible," he said. ■

Zero-Interest Energy-Efficiency Loans Offered

SSVEC is offering zero-percent interest loans to help cooperative members upgrade their homes to improve energy efficiency.

Loans can be used to improve the insulation of a home, upgrade doors or windows or replace existing heating/cooling systems with energy-efficient models.

Funding for the program comes from the demand-side management surcharge on members' monthly electric bills. That was approved by the Arizona Corporation Commission.

Jack Blair, SSVEC's chief member services officer, explained that $200,000 in loan funds is available for the remainder of 2010.

"Loan amounts from $2,000 to $20,000 will be considered," said Blair. "The cooperative will complete credit checks."

Blair stressed that an individual must own his home to be eligible. Work must be completed by a licensed and bonded contractor, and only site-built homes are eligible.

Blair noted funding is limited.

"In anticipation of a large number of members participating in the program, SSVEC will maintain a reservations list," he said.

For more information, check SSVEC's website at www.ssvec.org or call your local SSVEC office and ask for extension 3471. ■

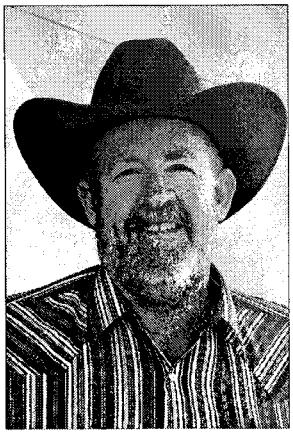
Meet SSVEC's Newest Director

In April, co-op members in District 3 elected Joe Smith as their new SSVEC director.

Joe, who lives in Dragoon, is a native to the area and president of Texas Canyon Rock and Sand.

Joe grew up on the C-Bar Ranch in Texas Canyon and graduated from Benson High School. He left the area to pursue a degree in biology from Beloit College in Beloit, Wisconsin.

He returned to Southeast Arizona, and worked at a variety of jobs, including hog farms in Animas, New Mexico, and Bonita, Arizona; Hughes Aircraft; and a mining and road construction company.



Joe Smith, SSVEC director for District 3 (Kansas Settlement, Cochise, Pearce-Sunsites and Dragoon).

While working the latter job, he grew Texas Canyon Rock and Sand into a self-sustaining business with his father and two brothers.

Joe served on the Benson School Board for five years.

Asked what skills and expertise he brings to the SSVEC board, he said, "I have a strong business background and a knowledge of the local community and the people served by the cooperative."

Joe sees two major challenges facing SSVEC.

"One issue is maintaining electricity costs as effectively as possible in light of rising fuel prices," he said. "Second, we have to maintain reliable service as our communities grow."

Joe and his wife, Cassie, have two children: Whitney (deceased) and an adult son, Nicholas, who is an accountant in Tucson. ■

Pack Up Energy Savings

When taking a vacation, do you think about giving your meter a break, too?

By Pam Blair

It's easy to forget about conserving electricity when you and your family pack up the car to head off on vacation or a lengthy trip. But if you don't think about it before you leave, you could face an unpleasant—even irritating—surprise when you return.

While it seems to make no sense, your energy bill can be the same or even higher when your home is unoccupied. Some equipment, motors and electrical devices use power, whether or not anyone is home.

Let your meter know you are gone by preparing your home before you leave. Then you can enjoy your vacation knowing you are not wasting energy—or your money.

Preparing the Home for Your Absence

Air conditioning and heating are the top users of electricity. Before you pull out of the driveway, you turn the thermostat to its lowest possible setting, thinking you have effectively turned off the system.

In reality, you have only turned it to the lowest setting—generally 55 degrees. That means it will come on each time the temperature inside the house drops below 55 degrees. In the fall, winter and even spring, that could be every day. The same principle applies to your air conditioning system.

To really disable your heating and cooling system, shut them off at the breaker panel. Before you do that, though, make sure the house won't get so cold your plumbing is at risk.

If you fail to shut off the breaker, your heating costs could actually rise when you are not home. That is because clothes drying, cooking, bathing and human activity give off heat that contributes to a home's temperature. Without a human presence, the heating system must work harder.

The second-biggest user of electricity is your water heater. Because it is out of sight, it is easy to forget. If you will be gone for more than two days, turn the heater off at the breaker. Left on, the water heater will work to keep all 50 or more gallons of water in the tank heated to 120 to 140 degrees, 24 hours a day.

Refrigerators and freezers draw electricity to keep your food cold and frozen in your absence. If you will be gone for a prolonged time, empty them out, shut them off at the breaker and prop open the doors to prevent mildew from growing inside.

Anything that uses clocks, memory, remote control, microprocessors and instant-on features—such as televisions and VCRs—consume small amounts of electricity even when turned "off." Unplug those items before you leave.

Rather than leave lights on all day, use a timer.

Detecting Other Reasons for High Bills

Staying home and trying to figure out what is behind an increase in your electric bill? Consider these possible causes:

- Did your bills go up dramatically at the beginning of summer or winter, when you regularly began running the air conditioning or electric heat? Perhaps temperatures are extreme. Your system also may need help. Change filters and check window caulking. If that doesn't stabilize your bill, call your utility or a heating/air-conditioning professional for help with more complicated things, such as thermostat operation and compressor cycling.
- A defective water heater thermostat can prevent the heating element from cutting off, causing

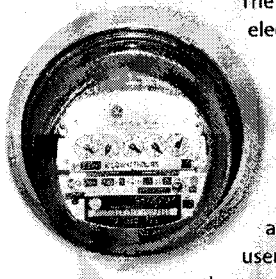
What's Up With My Electric Meter?

Often consumers faced with higher-than-usual bills wonder if their meter is wrong, if it was read improperly or if it has a short and is running fast.

While those things can happen, they are rare.

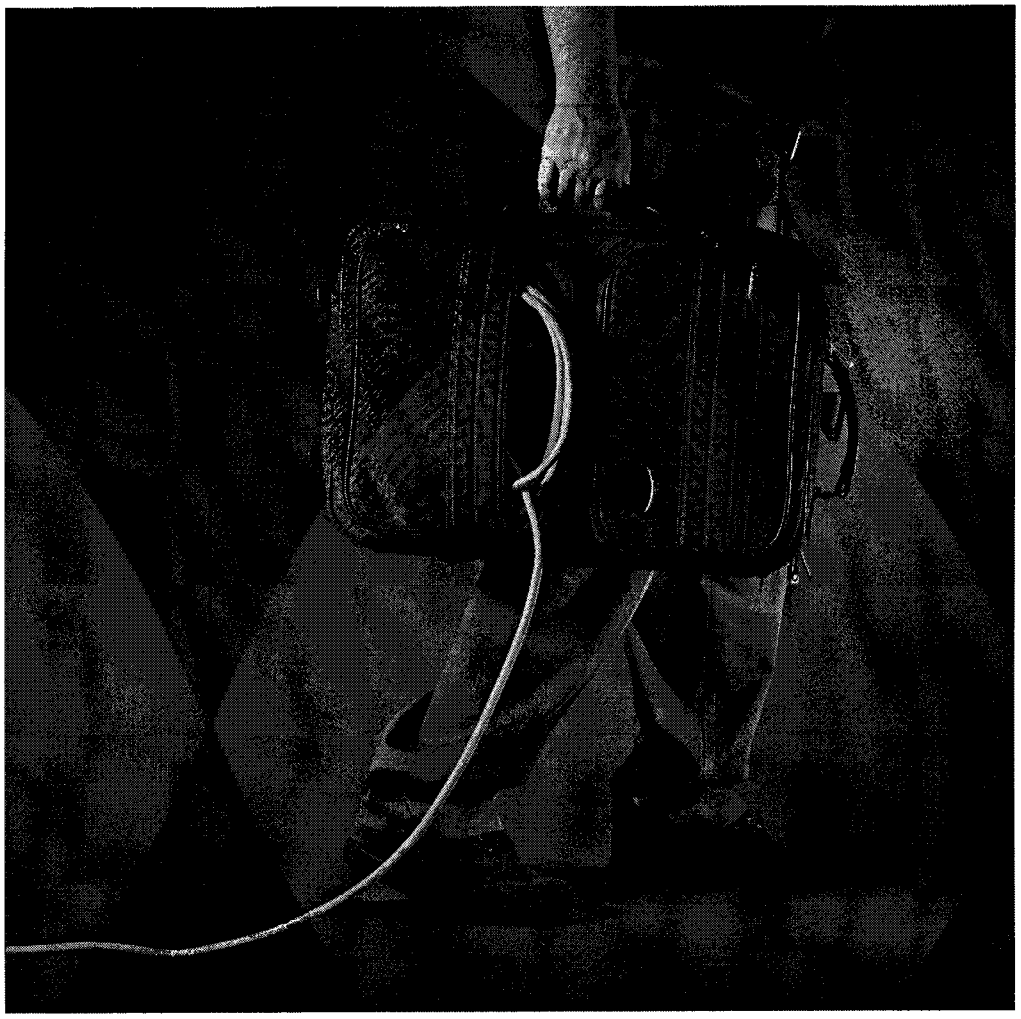
Your electric meter is a finely calibrated device that is almost always within the plus or minus 2 percent tolerance range. Meters are regularly tested to ensure accuracy.

High bills rarely are due to a faulty, fast-running meter. In fact, a meter tends to gradually slow with age, benefiting the consumer.



The most common cause of high bills is an increase in electrical usage.

When you are home, you use electricity for lighting, heating and cooling, cooking, cleaning, operating electronics and powering your computer. But the electricity is on even when you are gone, powering your water heater, refrigerator, pumps and all of those electronics that have a built-in clock and automatic "on" function. They are "phantom" power users, drawing a small amount of electricity whenever they are plugged in, regardless of whether they are turned on.



When you pack your bag and leave for vacation, make sure you are not wasting electricity at home. Unplug non-critical devices to give your meter—and your power bill—a break.

Photo by Mike Teegarden

continuous operation. In two-element heaters, failure of one element can cause the other to operate more.

- Do you live in a rural area and have a well? The cushion of air above the water in the pressure tank can be lost, or waterlogged, causing the tank pressure to drop rapidly when the pump cycles off. When this occurs, the pump continuously cycles on and off, causing higher-than-normal electric usage.
- Consider your living habits. Do you love gadgets? Most are powered by electricity. Perhaps you have a growing family, and you recently purchased a computer and a dishwasher. Do you love to cook? Do you and your family spend hours surfing the Internet? Did you have guests who stayed for weeks on end, and who left on the lights and did laundry? All of these activities add to your electricity usage.
- Has anything changed in your household? Spring or fall cleaning, holiday activities, sickness or convalescence at home, and changes in the size of the family—for example, a new baby or a college student returning home—often result in increased electrical usage.
- If you have moved into a new home, consider whether your new dwelling is larger than your former home, is in a location with more extreme temperatures or wind, has a larger water heater and/or heating equipment, is less well insulated, has fewer draperies or has manual heating controls.
- Billing periods can vary from month to month. Note whether the month contained five weekends or a holiday—time when usage tends to be greater.
- Other causes of bill variations are defective appliances, frost on a refrigerator unit, home repairs, lack of good appliance maintenance, defective house wiring, exposure of pipes and the water heater to cold air, and leaking hot water faucets. ■

Do the Math

To better understand how you use electricity, read your meter at about the same time each day for one week. Note activities done one day, but not the next, and special circumstances, such as overnight guests. That will help you identify reasons for varying usage. Subtract the previous day's reading from the current reading to see how many kilowatt-hours of electricity you use during a 24-hour period.

Wise Use of Electricity

Smart grid technology improves energy efficiency for utilities and consumers

By Mike Federman

For some consumers of electricity, the future of energy use is here today.

Burgeoning smart grid technology gives consumers and their utilities more control over when and how they use electricity.

Their goal is energy conservation, which can sustain affordability and minimize the need for new sources of electricity generation.

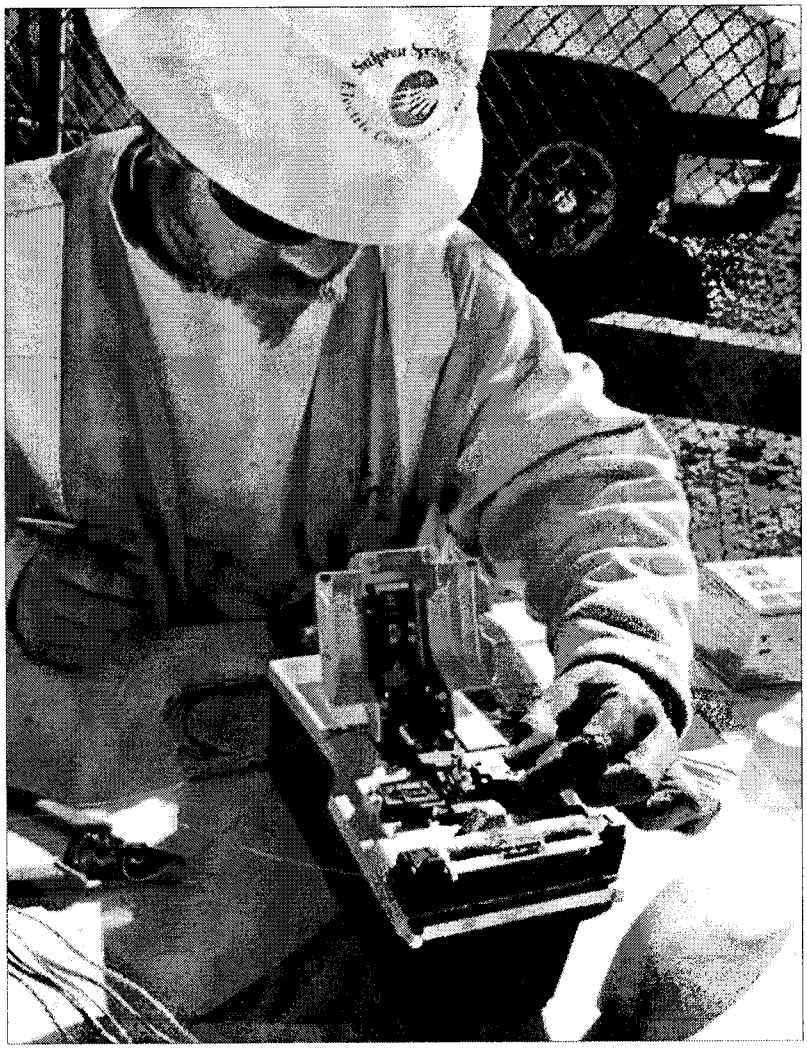
"We want to bring data to customers so they can make decisions about their energy consumption," says Eileen Brien, smart grid program manager for Sulphur Springs Valley Electric Cooperative (SSVEC), based in Willcox, Arizona.

Creating a two-way communications network is the first step to using smart grid technology. To achieve this, SSVEC has accepted a grant from the U.S. Department of Energy (DOE) to pay for system upgrades that include 150 miles of fiber optic line, improvements to the co-op's supervisory control and data acquisition master station, installation of 2,500 home energy displays and automated metering infrastructure, Brien says.

"This is part of a 10-year plan that we can do in about three years," she says. "Our company will continue to reinvest in our infrastructure, but with DOE funds, this project will be more affordable and we can do it on an accelerated basis."

SSVEC will match its portion of funding, which is about 68 percent of the $32.2 million price tag of an integrated smart grid project that includes Southwest Transmission Cooperative—SSVEC's transmission provider—and Mohave Electric Cooperative in Bullhead.

DOE funds come from the American Recovery and Reinvestment Act.



Sulphur Springs Valley Electric Cooperative Apprentice Lineman David Clark splices a fiber optic line as the co-op upgrades its power lines and substations to handle the data communications required for smart grid technology.

Photo by Larry Scott

"It is doing what it is supposed to do: stimulating the economy," Brien says, noting SSVEC's project already has

Continues on page 26

Smart Grid Defined

The Bonneville Power Administration (BPA) operates transmission lines across six states that carry wholesale power to public utilities in the Northwest and connect with transmission lines leading to other regions of the country.

BPA defines smart grid as a system that uses technology to enhance power delivery and use through intelligent two-way communication.

With increased communication and information, smart grid can monitor activities in real time, exchange data about supply and demand, and adjust power use to changing load requirements, according to BPA.

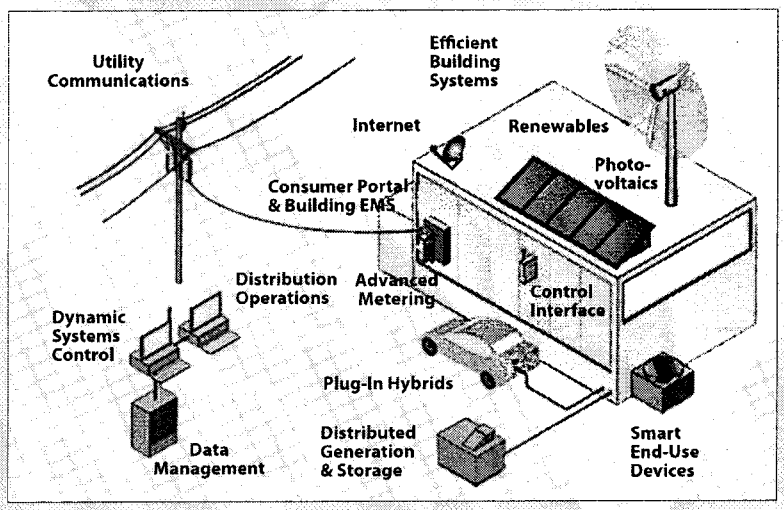


Illustration courtesy of the Bonneville Power Administration

Smart Grid

Continues from page 8

created new positions at the cooperative to handle smart grid applications.

Through better communication with end users, SSVEC expects to achieve more efficient management of electricity distribution. Benefits of smart grid technology is a system that:

- Can sense overloads and reroute power to prevent or minimize an outage.
- Can meet increased consumer demand without adding infrastructure.
- Will accept energy from virtually any fuel source, including solar and wind, as easily as coal and natural gas.
- Enables real-time communication between consumers and utility so consumers can tailor their energy consumption to individual preferences, such as price and/or environmental concerns.
- Can deliver high-quality power that is free of sags, spikes, disturbances and interruptions to run an increasingly digital economy and the data centers.
- Is resistant to sabotage, vandalism and natural disasters as it becomes more decentralized and reinforced with smart grid security protocols.

Brien says SSVEC will work with members to help them manage personal energy use, possibly including incentives for members who are willing to conserve energy during peak periods, which will reduce overall costs to the utility and maintain affordable rates.

"We are trying to help consumers change their behavior and understand energy use," Brien says. "The average consumer gets it, that if they turn up the air conditioner on a hot day, they will pay more on the back end with their electric bill. But some things are kind of fuzzy. They are not really sure how kilowatt-hours work. We want to educate consumers and let them have a little say about their bill."

The Role of Conservation

Better communication and control of their energy by end users is important to utilities in the Northwest who rely on the Bonneville Power Administration (BPA) for most of their wholesale power.

New contracts that go into effect in 2011 will change how utilities buy power from BPA.

The region's low-cost hydro system has reached capacity, requiring utilities to conserve energy rather than face the expense of building new power plants.

"Smart grid gives a lot of different choices to end users," says BPA spokeswoman Katie Pruder-Scruggs. "It gives utilities more flexibility and stretches the value of the hydro system."

The Northwest Power and Conservation Council estimates 85 percent of the region's load growth in the next 20 years can be met through energy efficiency.

"That's really ambitious," Pruder-Scruggs says, "but we are fully committed to reaching these targets with our customers."

BPA has partnered with utilities and technical firms in five states in a regional smart grid project. The $178 million project includes $89 million in matching funds from DOE.

A key to success is maintaining a high level of service while bringing about change.

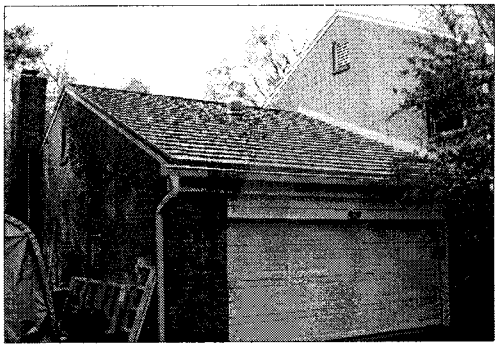
"We want people to be comfortable with new technology," Pruder-Scruggs says. "The whole concept of energy efficiency is not to have people shivering in the dark. It is to use our resources more effectively and make better use of technology." ■

Metal Roofs Keep Your Home Cooler

Q: *I heard metal roofs qualify for an energy-efficiency tax credit. How does a metal roof conserve energy? Are they worth the added cost? What type is best?*

A: Many—but not all—metal roofs qualify for the federal energy conservation tax credit for 2010. Metal roofs save energy by keeping your house cooler during the summer, which can reduce electric bills if your home is air conditioned.

A metal roof has a negligible impact on energy efficiency in the winter.



A completed garage metal roof with matching trim and flashing.

In general, to qualify for the energy tax credit the roof must meet Energy Star qualification standards. For roofing, this means the total solar reflectivity (TSR) must be greater than 25 percent when new and 15 percent after three years of aging. To be sure the roofing qualifies, ask for the specifications and a manufacturer's certification statement (MCS).

It pays to be diligent. I recently got quotes on a roof installation and several roofers told me their asphalt shingles qualified for the tax credit. They actually did not qualify.

The amount of the tax credit is 30 percent of the material cost of the roof (not installation expenses) to a maximum of $1,500. Use IRS form 5695 to apply for the tax credit and save the payment receipt and MCS in case of a tax audit.

For my own home project, I selected a Classic Metal Roofing Systems aluminum roof. It is made from 98 percent recycled aluminum, and the 1-by-2-foot panels are formed to simulate a cedar shake roof. It's attractive and unique.

To install the aluminum panel roof, a special film underlayment was nailed down with plastic clips and stainless steel fasteners over the existing shingles, which saved the expense of tearing off the old shingles. Each aluminum panel interlocks with the adjacent ones on all four sides. The top of each panel is held down by a stainless steel nail through a hole in the upper corner and an aluminum clip attached midway across the top. It is designed to stand up to a 120-mph wind.

Although it is more expensive to install than an asphalt shingle roof, my new metal roof will never have to be replaced. From a lifetime cost comparison, it is cheaper than installing an asphalt roof every 20 to 30 years. I get a 3-percent reduction on my homeowner's insurance because of reduced fire hazard.

Most metal roofs reflect more of the sun's heat than do asphalt shingles, particularly black shingles. My metal roof has a TRS of 0.43. A black asphalt shingle roof has a TRS of only 0.05. This keeps the roofing materials cooler so less heat is radiated down through the ceilings to the living area. The underside of the aluminum surface has lower "emissivity"—the ability to emit heat—than shingles, so less heat radiates downward.

The final energy advantage is the Classic Metal Roofing aluminum panels are relatively thin, with the contour of shakes formed into them. This contour creates an air gap between most of the roofing and the roof sheathing or shingles below it. The gap allows some outdoor air to circulate up under the metal roof panels to keep them cooler.

Steel roofing is another option. Painted standing seam or tile steel roofing is durable. The bright colors and unique appearance are signatures of upscale homes.

The following companies offer metal roofs:

- **Classic Metal Roofing**
  (800) 543-8938
  www.classicmetalroofingsystems.com
- **Conklin Metal**
  (800) 282-7386
  www.metalshingle.com
- **Follansbee Steel**
  (800) 624-6906
  www.follansbeeroofing.com
- **Met-Tile**
  (909) 947-0311
  www.met-tile.com. ■

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When is it Time for an Upgrade?

You have had your refrigerator forever. It's in pretty good shape and keeps your food cool. When should you upgrade it? Inefficient appliances affect a home's monthly power bill. Replacing a refrigerator made before 1993 with a new Energy Star-rated model could knock $65 to $100 off your electricity bill each year.

When evaluating an appliance, estimate its energy use with this formula: Wattage × hours used per day × days used per year ÷ 1,000 = kilowatt-hours (kWh) used annually.

A standard large-screen television (214 Watts) used 4 hours a day x 365 days a year ÷ 1,000 = 312 kWh. Multiply the kWh per year by your utility's rate per kWh. In this example, 312 kWh × $0.118 (the 2010 national average) = $36.82 per year.

An Energy Star-rated model (151.5 Watts) costs only $25 a year to power.

The wattage is stamped on the bottom or back of most appliances, or its nameplate. It is the maximum power drawn. Some appliances, such as hair-dryers, have a range of settings, so the amount consumed depends on the setting used.

Here are examples of the range of wattages for common household appliances:

- Clothes washer: 350 to 500
- Clothes dryer: 1,800 to 5,000
- Dishwasher: 1,200 to 2,400 (heat drying feature increases energy use)
- Hair dryer: 1,200 to 1,875
- Microwave: 750 to 1,100
- Refrigerator: 725 (frost-free, 16 cubic feet)

Once you calculate how much money you spend to run aging home appliances, compare this to what it would cost to use more efficient models. For example, clothes washers have become 64 percent more energy efficient since 2000 and the tub size increased by 9 percent, meaning you can wash more clothes for less money every month.

Don't want the hassle of adding up the potential savings? Touchstone Energy Cooperatives' Web site, www.TogetherWeSave.com, demonstrates how small changes such as replacing an appliance or unplugging electronics lead to big energy savings.

Under "Add Up Your Savings," you can walk through a typical home's kitchen, living room and other common areas. Upgrade appliances and make other energy-smart choices in each room. Each time you make a change, you are shown how much money you could save on your annual electric bill.

Touchstone Energy® Cooperatives
TOGETHERWESAVE.COM

May 2010
Vol. 45, No. 3

Living the Dream 12

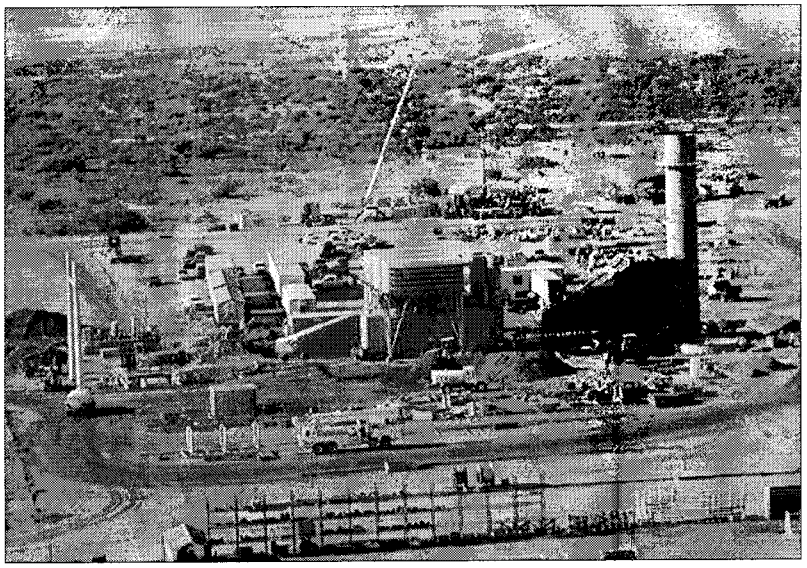
Scott Linden has carved out a remarkable career from his love of the outdoors.

Also In This Issue

Established Flexibility

Despite fluctuating prices, natural gas is still reliable for baseload and backup power

By Mike Federman



An aerial view during construction of one of Arizona Electric Power Cooperative's four natural gas-powered electricity generation units in Cochise, Arizona. This 40-megawatt unit is powered by a General Electric LM6000 turbine.

Photo courtesy of Arizona Electric Power Cooperative

Proponents of natural gas as a fuel source for electricity generation believe it will be vital to the nation's energy mix for years to come.

The U.S. Department of Energy predicts 90 percent of the next 1,000 new power plants built in the United States will have turbines driven by natural gas.

Dependable, baseload generation is the most important aspect of natural gas. When weighed against other baseload fuel sources, natural gas stands alone.

Hydropower and nuclear generation are cleaner, but more expensive to build. The planning of new large hydro plants is negligible. The Watts Bar Unit 2 nuclear reactor in Tennessee is scheduled for operation in 2012—the first new reactor to produce electricity in the United States since 1995, according to the U.S. Energy Information Administration (EIA).

Price volatility and, for some regions, availability of natural gas are dubious factors for utilities considering the use of natural gas.

"Although new natural gas-fired combined-cycle plants produce electricity more efficiently than older fossil-fueled plants, high natural gas prices can work against full utilization of these plants if such prices adversely affect economic dispatch," according to the EIA annual electric power report issued in January.

While there is less price fluctuation in coal than natural gas, coal is the main target of emissions controls under proposed climate legislation before both houses of Congress.

Natural gas still produces greenhouse gases, but on a greatly reduced scale than coal. Combustion of natural gas emits 40 percent to 50 percent less carbon dioxide than coal, according to the U.S. Environmental Protection Agency. Natural gas emits no significant amounts of sulfur dioxide or ash particulants, and much lower levels of oxides of nitrogen than coal.

Stabilizing Peak Demand

Arizona Electric Power Cooperative (AEPCO), based in Benson, Arizona, relies on natural gas as a backup to coal at its Apache Generating Station in Cochise. AEPCO provides electricity to small distribution co-ops primarily in Southeast Arizona and Anza, California.

"Natural gas is a great asset to our members," says Michael Nelson, AEPCO's manager of power production. "It is a stable, reliable resource."

Peak energy needs during summer is the most common time AEPCO turns to natural gas. The co-op's primary peaking unit is a General Electric LM6000 simple cycle turbine—equivalent to a Boeing jet engine—that can be brought on line in 10 minutes, Nelson says.

Although AEPCO doesn't use natural gas all of the time, having it available to supplement coal is more efficient and less expensive than buying market power for peak demands, unless spot purchases can be made for less than the cost of generation, Nelson says.

In the early 1990s, AEPCO converted two coal-fired steam units so they also can burn natural gas. Nelson says these conversions have paid for themselves by giving AEPCO an alternative when negotiating coal contracts.

Continues on page 26

Natural Gas

Continues from page 8

In recent years, however, natural gas is the fuel with the higher price tag. The cost of natural gas delivered to electric power plants nationwide increased 26.9 percent between 2007 and 2008, according to the EIA report. Coal costs increased 16.9 percent during the same period, marking the eighth straight year of price hikes.

Fuel costs have left many utilities in the lurch when planning how to increase baseload production to meet population growth.

The Southwest Public Power Resources (SPPR) Group, of which AEPCO is a participant, has put on hold development of a new natural gas combined cycle generating plant.

"The reason we stepped back from that was the economics," Nelson says. "We had to consider the cost of a self-built option to procuring something already on the ground."

SPPR is a coalition of utilities with similar needs. By grouping their resource requirements, the utilities have more buying power together than on their own.

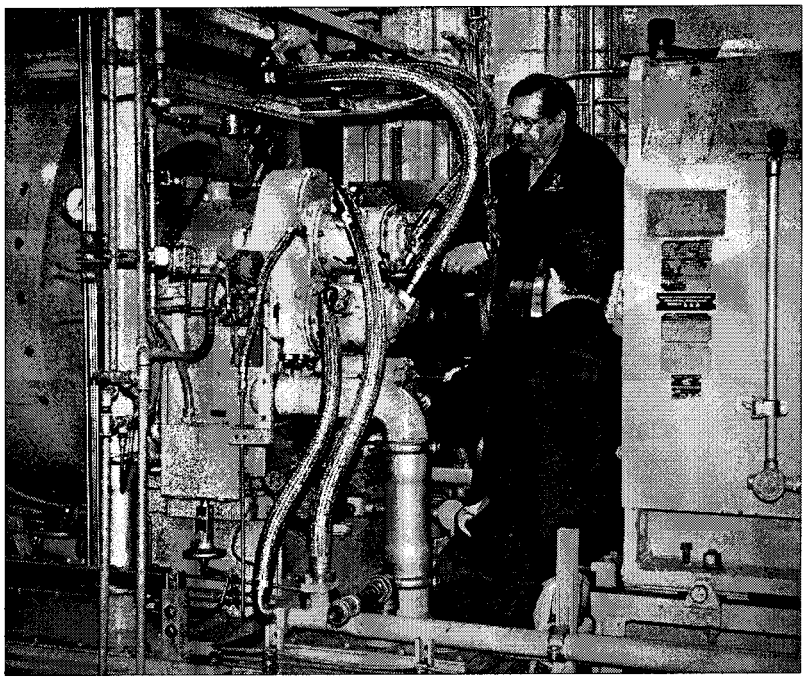
"We will continue to look at economics and how to best meet our members' needs," Nelson says. "Our goal is a long-term contract that provides reliable and inexpensive power."

Powering the North Country

Nowhere is the efficiency of natural gas more important than at the top of the world in Barrow, Alaska.

Barrow Utilities and Electric Co-op Inc. (BUECI) has seven small natural gas units that generate electricity for the community. BUECI's maximum capacity is 20.5 megawatts, which is about double its peak demand.

"Double firm power" is crucial for keeping the lights on in arctic conditions, where 40-below zero is not uncommon into spring, says BUECI General Manager Ben Frantz.



Barrow Utilities mechanics Pat Cleveland, standing, and Destin Smith service a coupling on a 4.75-megawatt Solar Taurus 60 natural gas turbine used for power generation at the co-op's facility in Barrow, Alaska.

Photo by Jim Stettler

"We could lose our two largest generators and we would still have enough generation to meet peak capacity," Frantz says.

Barrow is only 15 miles from a municipal natural gas field in Alaska's North Slope. The co-op buys natural gas "at a very reasonable rate," Frantz says, and distributes it for heating and electricity.

Getting natural gas from the North Slope to Interior Alaska and beyond could make the commodity even more valuable than it already is.

The Alaska Gas Inducement Act proposes a natural gas pipeline similar to the oil pipeline from Prudhoe Bay to Prince William Sound. Options could include branch lines that would bring natural gas into Fairbanks and Anchorage.

Golden Valley Electric Association (GVEA), which serves Fairbanks and surrounding communities in the Interior is not waiting for a pipeline. The co-op in April moved forward on a 15-year fuel contract that will truck liquid natural gas from the North Slope to its service territory, where it will be regasified.

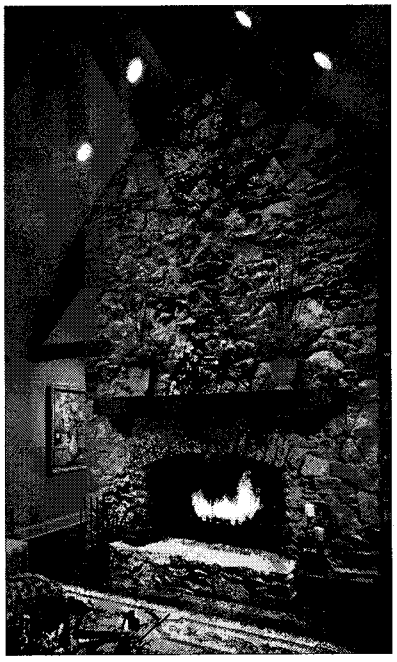
"With current oil prices at $70 to $80 a barrel, this project will save us about $12 million a year," says Kate Lamal, vice president of power supply for GVEA.

GVEA has a mix of energy sources for power generation that includes coal, hydro and refined oil. A recently constructed combined cycle generator near Fairbanks will burn the natural gas.

Finding ways to use natural gas is important for utilities looking to keep their costs under control.

"Natural gas will continue to be the choice of fuels for the future due to the environmental impacts of coal as it is typically burned today," says AEPCO's Nelson. "Renewables still have a high cost of installation and lower capacity factor when compared to coal, nuclear and natural gas units." ■

Recessed Lighting Can Be Efficient



Angular recessed lights by Juno Lighting fit a sloped ceiling for downlighting to highlight a home's architectural features.

Photo courtesy of Juno Lighting

To ask a question, write to **James Dulley**, Energy Report, 6906 Royalgreen Dr., Cincinnati, Ohio 45244, or check his Web page, **www.dulley.com**.

***Q:** I like recessed light fixtures, but I have heard they are leaky and inefficient. Are new types of fixtures more energy efficient? Are they difficult to install?*

A: Recessed lights remain the fixture of choice for overhead lighting. Some are more energy efficient than others. Efficient options can use 80 percent less electricity than ones that provide the same light and about the same appearance.

Recessed light fixtures penetrate and are mounted in the ceiling of a room. From an energy conservation standpoint, this is not an issue when installed in the first floor ceiling of a two-story house. However, if fixtures are installed in the second-story ceiling or the first floor ceiling of a one-story house, a hole is created between a conditioned living area and the open, unconditioned attic area.

Without an efficient design and proper installation, a recessed fixture allows conditioned air to leak out of the house. This is particularly true during winter when the warmer air inside naturally rises to the ceiling. This may create a draft in rooms where cold outdoor air leaks indoors.

Several new energy-efficient recessed light fixture designs meet Energy Star standards. All use fluorescent light sources instead of incandescent bulbs. This alone reduces electricity consumption by 75 percent. The inside surface is more reflective. Better reflectivity reduces the amount of light trapped and dissipated inside a fixture before ever getting into a room.

For fixtures in ceilings where indoor air leakage seems likely, select a new airtight design with a sealed canister. The sealed airtight recessed fixture canister, when installed properly, forms an airtight seal between the ceiling and the fixture. These fixtures are often used in ceilings beneath an unconditioned attic, but they are effective for unheated basement ceilings, minimizing drafts between floors.

If a recessed light fixture will be installed in a ceiling under an insulated attic floor, select an insulation contact-rated (IC) design. These are designed to touch insulation without overheating the fixture. When installing new non-IC fixtures, the insulation must be kept away from the canister. This insulation void increases heat loss from the room below even if the installation is airtight.

To brighten an entire room, downlighting can be effective. In a normal-height ceiling, a 4-foot spacing of recessed light fixtures provides an even lighting pattern at floor level. Typical 6-inch-diameter fluorescent fixed vertical fixtures work well for downlighting. If you want to dim some lights, consider installing a second circuit and dimmer switch with incandescent bulbs in those fixtures.

For task lighting, a single fixed vertical fixture directly over the work area is effective. Wall wash recessed lighting can accent a painting or wall hangings. An eyeball recessed light is best for this application because the light path can be adjusted. For a sloped cathedral ceiling, install an angular recessed fixture—preferably an IC model since it will be in contact with ceiling insulation.

It's not difficult to install recessed light fixtures by yourself. Cut the mounting holes the exact size recommended by the manufacturer. This makes it easier to create a good seal between the fixture and the ceiling. Before drilling and cutting holes, make sure your fixture layout clears all of the floor joists.

The following companies offer efficient recessed fixtures:

- **Capri Lighting**
  (800) 234-1890
  www.caprilighting.com
- **Cooper Lighting**
  (770) 486-4800
  www.cooperlighting.com
- **Juno Lighting**
  (847) 827-9880
  www.junolighting.com
- **Lightolier**
  (800) 215-1068
  www.lightolier.com
- **Sea Gull Lighting**
  (800) 347-5483
  www.seagulllighting.com. ■

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Energy Star: A Bright Light

When shopping for new appliances, it is common to look for an Energy Star rating. But how do appliances get this rating? Why don't all types of appliances have it? The answer may surprise you.

Computers and monitors were the first products to receive an Energy Star efficiency rating under a program launched in 1992 by the U.S. Environmental Protection Agency and the U.S. Department of Energy. More than 60 product categories have been added, from dishwashers to windows and DVD players.

Energy Star-rated products deliver the same or better performance as comparable models, while using less energy and saving money.

The initiative works closely with industry experts, governments, nonprofit organizations and utilities.

"We agree on a fair way to test products," says Katharine Kaplan, Energy Star program manager. "Manufacturers test products using that procedure, submit the data to us and we say, 'These are the top performers. This is how much energy you can use to be considered a leader by Energy Star.' Generally, that means you're in the top 25 percent."

Qualified refrigerators must be at least 15 percent more efficient than the minimum federal efficiency standard. Energy Star-rated TVs consume 3 watts or less when switched off, compared with a standard TV, which consumes almost 6 watts, on average.

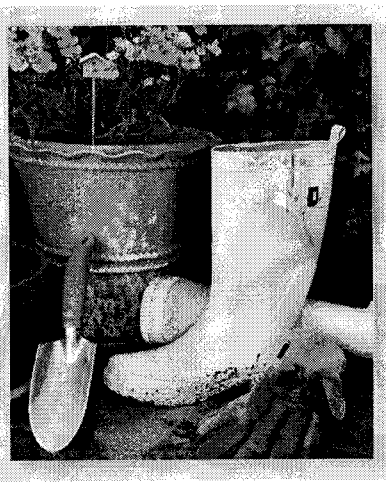
By pushing for the manufacturing of more efficient products, Energy Star estimates the rating system saved businesses, organizations and consumers $19 billion in 2008.

Not all products are rated by Energy Star. The program gauges the average energy efficiency of different appliance technologies and evaluates whether there is potential for increased efficiency—generally at least 25 percent higher than minimum standards.

According to Energy Star, the most efficient electric resistance water heaters on the market have an Energy Factor of 0.95, about 5 percent more efficient than the minimum federal standard. Since there is little room for improvement, Energy Star does not have a category for the product.

Energy Star remains a driving force not just in the United States, but Australia, Canada, Japan, New Zealand, Taiwan and the European Union. ■

Federal energy-efficiency tax credits for appliances and home heating and air systems typically require qualifying products to be Energy Star-rated. To learn more about the Energy Star program, visit www.energystar.gov.



March 2010
Vol. 45, No. 2

Mouth Watering 12

Growing in less than ideal conditions, and other tips for a greener thumb.

Also In This Issue

Net Metering is Available

Members now can 'sell' excess renewable energy to SSVEC

The Arizona Corporation Commission has approved the Sulphur Springs Valley Electric Cooperative (SSVEC) net metering program. This means a cooperative member who has a photovoltaic (PV) solar or wind system can get credit from SSVEC for renewable energy produced.

During a monthly billing period, any usage of grid power (electricity) is offset kilowatt-hour (kWh) for kWh by the energy produced by a PV or wind system of a home or business.

Any renewable power generated beyond the amount used in a month is carried forward at the cooperative's retail price as a credit on the next month's bill.

Once a year—either in March or September, depending on which month the member chooses—there is a "true-up" or payment to the member carrying a credit. The kWh cost for the "true-up" is calculated at the "avoided," or wholesale, power cost.

The program is open to all members who have a grid-connected renewable energy system. Participation in the program is voluntary.

There is a monthly cost of $2.70 to participate. After a number of years, the amount collected will be sufficient to cover the metering costs for the net metering program.

For more information about net metering, check the SSVEC Web site at **www.ssvec.org**.

An Electric Rate Formula

A number of 'ingredients' go into the power bill utilities send customers

By Pam Blair

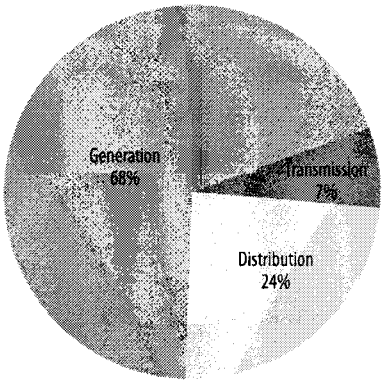
Putting together your power bill is a science. Like a chemist mixing liquids in a lab, it requires adding a specific amount of each ingredient to create a formula that allows the utility to stay in business and provide you with the electricity you can count on day in and day out.

Start with the cost of buying or generating power. Add in the distribution lines, electrical facilities and the utility's building. Account for the employees who keep your electricity flowing 24/7 and keep the utility in business. And don't forget to factor in the amount of electricity you use.

Prices vary by locality due to the availability of power plants, the type and cost of fuels used to produce electricity, and both state and federal regulations.

According to the U.S. Energy Information Administration (EIA), electricity prices are highest in Hawaii, where most of the electricity is generated with fuel oil. That is the same reason prices are high in rural Alaska. Idaho has among the lowest prices, due to the availability of low-cost hydroelectric power.

Major Components of 2008 Average Electricity Prices in the United States



Source: U.S. Energy Information Administration

In 2008, Hawaii had the highest average price of electricity at 29.20 cents per kilowatt-hour (kWh), followed by Connecticut at 16.95 cents per kWh. Coal-dependent West Virginia had the lowest average price at 5.59 cents per kWh, followed by Wyoming, 5.68 cents per kWh, and Idaho, 5.70 cents per kWh.

The average retail price for U.S. residential consumers was 11.3 cents per kWh.

A Glance At Common Charges

Electric bills and terminology vary by utility, but all include two specific items.

- **Basic or facilities charge:** A monthly fee designed to collect a percentage of the utility's fixed costs of doing business. It covers such things as billing, customer service, meter reading, poles and wires. It is assessed regardless of the amount of electricity used, so all who benefit from access to the service share in the cost.
- **Energy charge:** The actual price you are charged for electricity. It is calculated by multiplying the kilowatt-hour (kWh) rate by the number of kilowatts used. Generally, it accounts for the bulk of the bill. Many utilities have different rate schedules for different classes of customers, such as residential, commercial, industrial and irrigation. Some also have a sliding scale, with those using a larger share of power paying a higher rate on amounts exceeding a certain level.

Depending on the utility, region of the country and customer choices, the bill also may include line item charges for generation, transmission, distribution, fuel, peak and off-peak rates, public purposes and green power. An energy rate adjustment may be assessed to recover the utility's cost to buy or produce power in excess of a certain price. A Power Cost Equalization deduction offsets the higher cost of power residential customers in rural Alaska pay than in urban areas of the state.

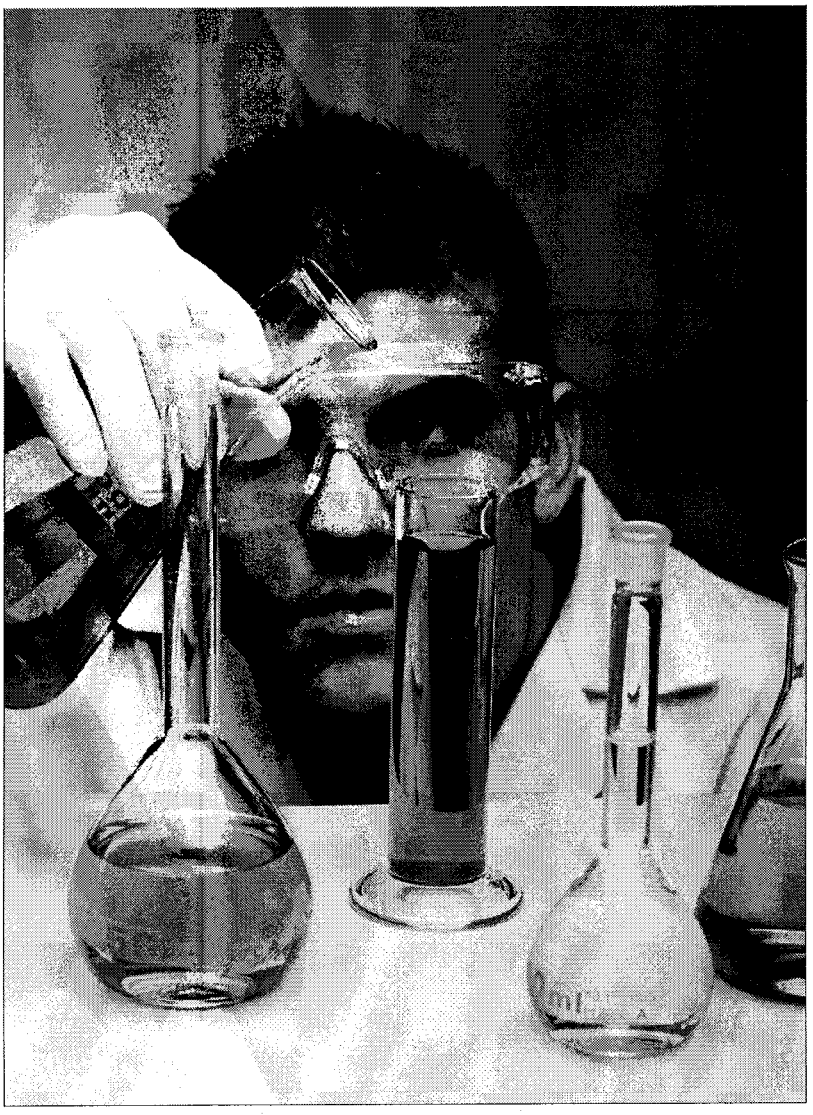
Producing Power the Major Expense

The cost of generating electricity is by far the largest component in the price you pay for power. Nationwide, it accounts for more than two-thirds of the cost.

Some fuels are cheaper than others.

The Bonneville Power Administration's wholesale cost for priority firm hydropower in 2008 was 4.75 cents per kWh. However, that didn't include transmission charges or fish and wildlife recovery costs of nearly $1 billion a year.

At Black and Veatch—a company that has been involved in constructing coal, gas and wind plants—analysts report a modern coal plant of conventional design, without technology to capture carbon dioxide before it reaches the air, produces



Setting electric rates requires combining precise amounts of specific ingredients to create a formula.
Photo by Eva Serrabassa

power at about 7.8 cents a kWh. A high-efficiency natural gas plant is 10.6 cents, and a new nuclear reactor 10.8 cents.

It says a wind plant in a favorable location costs 9.9 cents per kWh, but since a utility needs conventional generators as a backup, that pushes the price to more than 12 cents, making it more than 50 percent more expensive than coal.

Between 1999 and 2008, the national annual average residential natural gas price more than doubled, according to the EIA. But prices in individual states differ greatly based on a market's proximity to producing areas, the number of pipelines in the state, average consumption per residence, transportation, state regulations and degree of competition.

The price of coal also varies by mining method, geographic region, coal quality and transportation costs. Where coal beds are thick and near the surface, as in Wyoming, mining costs and coal prices tend to be lower than where the beds are thinner and deeper, as in Appalachia.

Heating oil prices are determined by the cost of crude oil; the cost of producing, marketing and distributing the product; and the profits or losses of refiners, wholesalers and dealers. Prices can change dramatically. If enough heating oil is in storage and temperatures do not drop rapidly, prices are fairly steady. A rapid change to colder weather can affect supply and demand, driving up prices.

Power plant construction and maintenance costs also impact the price of electricity.

The cost to generate electricity varies minute-by-minute. Throughout a single day, the wholesale price reflects the real-time demand for electricity. Demand is usually highest in the afternoon and early evening, so prices are higher then. However, most consumers' rates are based on the seasonal average price of electricity.

—Energy Information Administration

Other Factors Affect Prices

When you need electric power, all you have to do is flip a switch or plug into an outlet. That convenience requires an investment in equipment and manpower.

The power delivery system includes transmission lines, substations, distribution lines, transformers, power poles and meters. Maintaining and operating all of that equipment requires workers. Local office staff are needed to provide customer service and handle billing.

All of that adds to the cost of electricity.

So do federal and state regulations.

Efforts to increase the use of renewable energy—notably wind and solar—results in paying for often higher-cost generation. It also requires upgrading the power grid to incorporate and deliver it.

Some utilities offer customers the option to pay a premium to support the production of "green" power.

The U.S. Congress is considering legislation that would require power generators—most notably coal producers—to reduce their impact on the environment. That also would increase electricity costs.

In the end, however, the primary factor that affects your monthly bill is how much energy is used by the appliances, heating and cooling system, lights and electronics in your home. ■

Conserving Electrical Resources

Using power wisely will reduce your bill and keep utility costs down

By Pam Blair

Dad sits in his easy chair reading the paper, while Mom is at the table making notes. Junior is busy playing with his truck. In another room, both the the television and stereo are on, and a lamp lights a now unoccupied space.

The meter spins along, recording usage from electrical items throughout the house. It doesn't matter that no one is watching the football game. The meter only knows the television is drawing power.

The family will pay for all of that electricity—even the part wasted from lights and electronics left on when the last person exited the room.

Conservation does not mean being uncomfortable or inconvenienced. It is about being mindful of electrical use, and choosing to adjust behaviors to minimize wastefulness: flipping off the lightswitch when leaving a room, turning down the thermostat when no one is at home and shutting off the television when no one is watching.

By conserving electricity, the consumer directly benefits from a lower power bill. In the case of publicly owned utilities, the consumer wins again, because the less power people use, the less power the utility must buy or produce—and the less you pay.

Maximizing Existing Resources

At work and at home, Americans use equipment that requires a lot of energy. According to the U.S. Environmental Protection Agency (EPA), if the nation's appetite for electricity continues at its current pace, the United States will use 20 percent to 50 percent more energy in 2025 than it does today.

The EPA estimates Americans could net more than $500 billion in savings in 25 years and save up to 30 percent on their energy bills through implementation of energy-efficiency measures, delaying the need to build dozens of costly new power plants.

That assessment is echoed in a 2009 report on the prospects for energy efficiency in America by the National Academy of Sciences.

"Taking advantage of technologies that save money as well as energy to produce the same mix of goods and services could reduce U.S. energy use to 30 percent below the 2030 forecast level, and even significantly below 2008 energy use," the executive summary states, noting that means "no new generation would be required except to address regional supply imbalances, replace obsolete generation assets or substitute more environmentally benign generation sources."

The 30-percent reduction can be achieved at a cost less than current average retail energy prices, the report adds.

The Arizona Corporation Commission may require utilities to achieve at least 22 percent savings from energy-efficiency measures by 2020.

Ramping Up Energy Efficiency

In response to climbing energy costs, depletion of existing resources, increasing costs to build new power plants and a growing awareness of the environmental impact of energy use, the federal and state governments are emphasizing energy efficiency.

More than $2 billion in grants have been awarded to states, territories, local governments and Indian tribes through the Energy Efficiency and

Continues on page 26

Is Conservation Different Than Efficiency?

The terms energy conservation and energy efficiency often are used interchangeably. While related, conservation typically refers to *behaviors* that reduce the quantity of energy used. Efficiency implies the use of *technology* to achieve the same level of service, but with less energy.

As a practical matter, both refer to reducing the amount of energy used.

The Northwest Power and Conservation Council actually defines conservation as improved energy efficiency, and refers to conservation resources as measures that improve the energy efficiency of all aspects of residential, commercial , industrial, irrigation and utility systems.

"These efficiencies reduce operating costs and ultimately decrease the need to build new power plants," the council states in its latest draft power plan for the region.

Continues from page 8

Conservation Block Grant Program, funded under the American Recovery and Reinvestment Act of 2009. Projects aim to improve energy efficiency, and reduce energy use and fossil fuel emissions.

In December, the Arizona Corporation Commission formally initiated an Energy Efficiency Standard rulemaking process. It would require utilities to achieve at least 22 percent savings from energy-efficiency measures by 2020.

"Cooperatives have always supported energy efficiency," says Chris Baggett, power services technical administrator for Sierra Southwest Cooperative Services, based in Benson, Arizona. "What has changed is the scope. They need to multiply what they are doing by 10 to even make a dent in the amount of energy efficiency they must achieve."

The Northwest also is pursuing aggressive energy-efficiency targets. In its draft power plan, the Northwest Power and Conservation Council suggests 58 percent of the region's new demand for electricity in the next five years can be met through energy efficiency—85 percent in the next 20 years.

While utility officials "value conservation as the least-cost, least-risk resources and they strive to achieve all cost-effective conservation in their service territories," they are concerned about the magnitude of target, John Saven, chief executive officer of Northwest Requirements Utilities, wrote in formal comments to the council.

The targets include measures that are not commercially available yet or may be unattainable because of the poor economy, wrote Scott Corwin, executive director of the Public Power Council.

Conservation Pays Big Dividends

No one questions the financial payoff of improving the energy efficiency of appliances, consumer electronics, lights, motors, electrical equipment or building construction—and wisely using energy.

California's dedication to energy efficiency since the early 1970s has saved more than 10,000 MW—the equivalent of 20 power plants—and reduced electricity bills by $15.8 billion, according to the California Energy Commission.

Since 1983, the Northwest has reduced demand by 3,700 aMW, resulting in about half as many new power plants being built—and consumers saved more than $1.6 billion in electricity costs in 2007 alone, the Northwest Power and Conservation Council states.

Although energy efficiency improvements have a cost, it is lower than building new power plants. In 2008 in the Northwest, it was 2 cents a kilowatt-hour, which was about one-fifth the cost of power from a new generating plant fueled by natural gas or wind.

"The cheapest kilowatt-hour is the one you don't have to generate," says Baggett of Sierra. "When looking at power supply, energy efficiency really is the first step. Energy efficiency should help stabilize rates." ■

Efficient Faucets Save On Two Fronts

Q: I need a new kitchen faucet because the old one leaks cold water. What types are most efficient at saving water, and which are most durable?

A: It is important to repair or replace a leaking kitchen faucet even if the water coming out feels cold. The dripping water may be coming from the hot water side of the faucet valve, but it feels cold because it has time to lose its heat before reaching the faucet.

This one-handle kitchen faucet has a pullout sprayer on a 59-inch hose. It offers a dual spray pattern for ease of use and functionality.

Photo courtesy of Moen

What seems like a small, slow drip can increase your energy and water bills.

Several design factors affect a kitchen faucet's overall energy and water efficiency. The maximum flow rate from the faucet is most important.

A tall spout faucet provides plenty of clearance to fill large pots or to get your hands under it to clean foods. If the faucet has a short or nearly horizontal spout, large pots must be filled in several steps from a smaller pot. This wastes more water down the drain because it is easier to leave the faucet running while the water is transferred from the small to the large pot.

Pull-down faucets, with a sprayer built into the outlet end, are convenient and efficient. Some have about a 6-foot long nylon hose for plenty of reach and flexibility. Look for a sprayer with an adjustable water-saving volume control. Moen's new Eco-Performance models provide three water flow settings for various tasks. The most efficient model uses 37-percent less water.

One that easily can be switched between spray or stream mode makes it more effective and efficient. A model with a 360-degree swiveling spout allows for more convenient placement of the faucet control handle.

One of the newest features is hands-free operation. This can be a significant energy and water saver. If you have the water set at the temperature you desire, you do not have to constantly move the handle to turn it on and off. A lot of water is wasted setting the temperature.

The technologies used are a proximity sensor or a touch control. When you put your hands in front of a proximity sensor model, the faucet comes on.

A touch control pullout faucet also is available. Four C-size batteries under the sink power it for several years. Turn the manual faucet handle on for water. Touch anywhere on the faucet to turn the water off. Touch again and it comes on. When you are done, just turn the faucet handle off manually.

Another factor to consider is whether you want a one-handle or two-handle control. If you are conscientious about using hot water only when necessary, a one-handle design is more efficient. It allows you to set the mixture of hot and cold water for the desired temperature, then vary the flow rate.

The faucet valve design affects its leak-free life. The best quality faucets today use discs to control the water flow rate and temperature.

The following companies offer efficient kitchen faucets:

- **American Standard**
  (800) 442-1902
  www.americanstandard-us.com
- **Delta Faucet**
  (800) 345-3358
  www.deltafaucet.com
- **Kohler**
  (800) 456-4537
  www.kohler.com
- **Moen**
  (800) 289-6636
  www.moen.com
- **Price Pfister**
  (800) 732-8238
  www.pricepfister.com. ■

To ask a question, write to **James Dulley**, Energy Report, 6906 Royalgreen Dr., Cincinnati, OH. 45244, or check his Web page, **www.dulley.com**.

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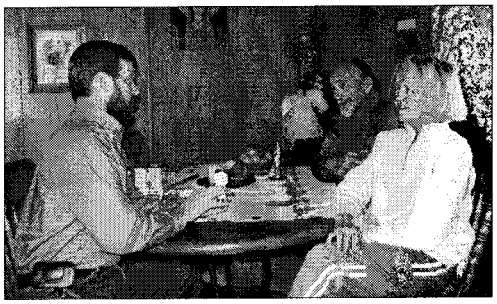
Look for Leaks In Your Home



Kevin Short of Anza Electric Cooperative tells Lee and Sunray Whitman what they can do to save energy.
Photo by Jodi Short

Cooler temperatures are an excellent time to detect air leaks in your home. Responsible for 25 percent to 40 percent of the energy used to heat and cool your home, air leaks usually are found in noninsulated or inadequately insulated spaces such as attics and crawlspaces and through leaks in ductwork.

Sealing air leaks is the most important thing consumers can do to save energy, lower their electric bills and enhance comfort levels in a home.

If you have air leaks, it doesn't matter if you have invested in a high-efficiency heat pump, an air conditioner, the latest Energy Star appliances or other equipment designed to save energy.

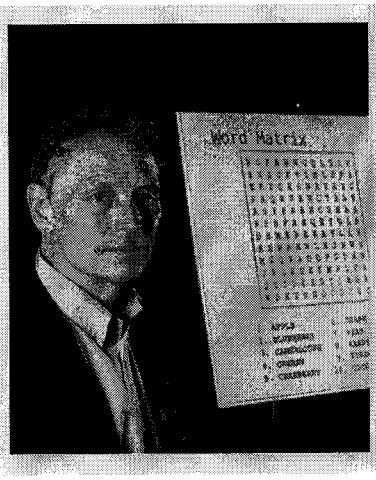
Ducts carry cool air in hot weather and hot air in cool weather. But if they have leaks, you are not going to be as comfortable as you want. More importantly, the leaks make the heating or cooling equipment work harder—and that costs you money.

You can try to find leaks yourself, but it may be worth the money to hire a professional energy auditor to perform a blower door test to determine if you have leaks, where they are located, their severity and make the repairs.

If you already know where leaks are located, you can fix them yourself. First, check and see if ducts have become disconnected and reconnect them. Next, check the connections for leaks by turning on your heating and cooling system fan and feeling for leaks.

Please don't use duct tape. Although the name implies it is made for sealing ducts, it is not. Special duct sealing materials—mastic or foil tape—are available for that job. Seal gaps around ducts with spray foam where they penetrate the floor or ceiling.

Ducts in an attic or crawlspace should be insulated. If ducts are uninsulated or poorly insulated, seal them and add insulation to keep the air in your ducts at its desired temperature as it moves through the system. Use duct insulation material rated at least R-6. ■



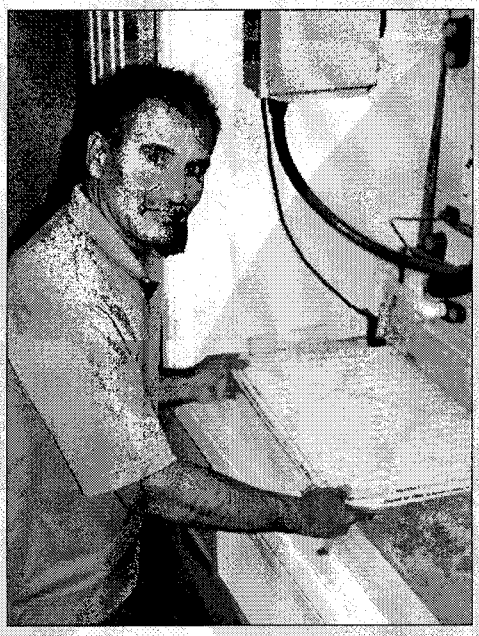
January 2010
Vol. 45, No. 1

Boost Your Brain Power 14

Mental exercises can help you ward off the effects of aging.

Also In This Issue

Energy Efficiency



Albert Gomez, SSVEC's energy management services specialist, shows how easy it is to regularly check your home's heat pump or furnace filter.

Photo by Wayne Crane

Get the most from your home heating system and stay warm this winter

This winter, make sure you are getting the full advantage of your energy dollars with your heating system.

- Check your heat pump or furnace filter often and replace it as needed. Depending on the inside air quality (dust, pet fur) you may need to replace it monthly.
- Adjust the setting on your ceiling fan to "reverse" to move air up to ceiling and redistribute the warm air that collects there back along the walls and to the living space. By using your ceiling fan you can reduce your thermostat setting by as much as three degrees without feeling the difference.
- Set your thermostat to 70 F during the day and 66 F at night. Or better yet, get a programmable thermostat that automatically adjusts the temperature of your house keeping you warm and saving energy!

SSVEC and the Smart Grid

Continues from page 32

The U.S. Department of Energy (DOE) lists five fundamental technologies it believes will drive the Smart Grid:

- **Integrated communications**—connecting components to open architecture for real-time information and control, allowing every part of the grid to both "talk" and "listen."
- **Sensing and measurement technologies**—to support faster and more accurate response such as remote monitoring, time-of-use pricing and demand-side management.
- **Advanced components**—to apply the latest research in superconductivity, storage, power electronics and diagnostics.
- **Advanced control methods**—to monitor essential components, enabling rapid diagnosis and precise solutions appropriate to any event.
- **Improved interfaces and decision support**—to amplify human decision-making, transforming grid operators and managers quite literally into visionaries when it comes to seeing into their systems.

How will SSVEC meet these objectives? Our plan will not achieve all of these objectives immediately, it is a long-term process and this is just the start. Our Smart Grid work plan includes the following jobs that must be completed within three years:

- Install 136 miles of fiber optic cable (on our existing 69-kilovolt system and planned additions).
- Install 19,150 smart meters—16,400 residential, 2,000 commercial, 750 other services.
- Install a Demand Side Management System.
- Install 2,500 Home Energy Displays (HEDs).
- Upgrade 10 line switches.
- Install 15 sectionalizing devices.
- Install 10 voltages regulators.
- Upgrade our Supervisory Control and Data Acquisition (SCADA) master station and install new SCADA.
- Upgrade Stewart and Tombstone switching stations.
- Upgrade seven transmission switching points.

This is a major undertaking for your cooperative. In addition to all of this new work, we still have all of our existing work to take care of. We have three years to accomplish this once the contracts are signed. It will be a busy three years for us. We will keep you updated on our progress.

We hope you have a happy and prosperous New Year! ■

Sulphur Springs Valley Electric Cooperative, Inc.

Making Sense out of Federal Stimulus Energy Efficiency Tax Credits

Saving with the STIMULUS

The 2009 American Recovery and Reinvestment Act provides incentives for you to make energy efficiency improvements to your existing home in 2009 and 2010. Receive a tax credit for 30 percent of the cost of materials for qualifying improvements—up to $1,500 over both years. The cost of installation is not covered for windows, doors, roofing and insulation. A list of qualified improvements is at **www.energystar.gov**, keyword 'tax credits.' Examples include:

Windows and Doors

Exterior Windows, Doors and Skylights	Must have Solar Heat Gain Coefficient (SHGC) and U-factor less than or equal to 0.30.
Storm Windows and Doors	When combined with the window/door over which it's installed, it must meet the International Energy Conservation Code (IECC) in your climate zone.

Roofing

Metal, Asphalt Roofs	All Energy Star metal and asphalt roofs qualify. Must be expected to last five years or have a two-year warranty.

Insulation

Insulation	Primary purpose must be to insulate. For example, vapor retarders are covered but insulated siding does not qualify. Also must meet 2009 IECC and be expected to last five years or have a two-year warranty.

Heating, Ventilating, and Air Conditioning *(HVAC)*

Central Air Conditioning	For split systems, must have an energy efficiency ratio (EER) greater than or equal to 13 and a Seasonal EER greater than or equal to 16. For package systems, must have an EER greater than or equal to 12 and a SEER greater than or equal to 14.
Air-Source Heat Pumps	For split systems, must have a Heating Seasonal Performance Factor (HSPF) greater than or equal to 8.5, an EER greater than or equal to 12.5, and a SEER greater than or equal to 15. For package systems, must have a HSPF greater than or equal to 8, an EER greater than or equal to 12, and a SEER greater than or equal to 14.
Natural Gas or Propane Furnace	Must have an Annual Fuel Utilization Efficiency (AFUE) greater than or equal to 95.
Gas, Propane or Oil Hot Water Boiler and Oil Furnace	Must have an AFUE greater than or equal to 90.
Advanced Main Air Circulating Fan	No more than 2 percent of furnace total energy use.

NOTE: Select non-solar water heaters and biomass stoves also qualify for energy efficiency tax credits. Tax credits are also available for renewable energy, including geothermal heat pumps. For tax purposes, the Manufacturer's Certification Statement and receipt are generally required.

Source: Energy Star. For details visit www.energystar.gov.

Tax Credits For Homeowners

There is still time to take advantage of stimulus funds for qualifying energy-efficient projects

By Megan McKoy

Consumers who took the plunge and made qualifying energy-efficiency upgrades in 2009 should see additional benefits this spring as tax season rolls around. For those still waiting on the sidelines, you have until the end of the year to take advantage of federal energy-efficiency tax credits.

Through the 2009 American Recovery and Reinvestment Act—better known as the stimulus bill—Uncle Sam offers a personal tax credit of up to $1,500 for energy-efficiency measures made at existing homes during 2009 and 2010. Consumers can recover 30 percent of the cost of adding insulation materials and exterior doors, windows and roofs designed to help reduce a home's heat loss or gain. The credit also pulls in efficient central air conditioners, air-source heat pumps, hot water boilers and biomass stoves.

"These credits put more money in homeowners' pockets," says Rob Marvin, media relations specialist for the Internal Revenue Service (IRS). "Say you spend $1,000 on new insulation. Taxpayers would get, in the form of a tax credit, $300 back. This

translates to a 30-percent tax credit. That's a lot more generous than the old (10 percent) credit provided for the 2006 and 2007 tax years."

However, qualifying guidelines are tougher, too.

"For an item to qualify, it has to be even more energy efficient than under the 2006 and 2007 program," Marvin says. "To utilize the new credit, a home improvement must have taken place after February 17, 2009,"—the day the stimulus bill was signed into law.

So how can you know which products qualify for the tax credit? Some purchases are easier to determine than others.

"For exterior windows and skylights, rely on the Energy Star label," Marvin says. "This is the green label you see in stores."

For other efficiency upgrades, request a manufacturer certification statement that the product or component qualifies for the tax credit. You also can visit www.irs.gov/recovery to review guidelines for qualifying purchases.

You must file for energy tax credits using IRS Form 5695. With a maximum value of $1,500 for improvements made in 2009 and 2010, the credit may be applied toward material costs on all projects. Installation costs for heating, ventilation and air conditioning systems, and biomass stoves also count toward the credit.

Energy tax credits reduce taxes owed, dollar for dollar, and can be carried forward to following years. While they can help boost any refund you receive, you won't receive a check directly for the credit amount.

Renewable Credits

Consumers who want to generate their own power are eligible for renewable energy tax credits on projects completed through 2016.

"This covers alternative-energy equipment connected to your house, such as solar water heaters, geothermal heat pumps, small wind turbines and other similar projects," Marvin says.

The credit—covering 30 percent of the cost of materials and installation for solar panels, solar water heaters and geothermal heat pumps—applies to both existing homes and new construction. Projects must be placed into service between January 1, 2009, and December 31, 2016. ■

Megan McKoy writes on consumer and cooperative affairs for the National Rural Electric Cooperative Association.

Online Resources

- **Energy Star, a joint program of the U.S. Department of Energy (DOE) and the U.S. Environmental Protection Agency, provides guidelines on what energy-efficiency and renewable energy projects qualify for tax credits at www.energystar.gov, keyword "tax credits."**
- **The Internal Revenue Service also provides a wealth of resources on all of the tax benefits offered through the stimulus program at www.irs.gov/recovery.**
- **Some electric utilities and state government offices offer further subsidies or rebates making homes more efficient. For a listing of state and local energy-efficiency assistance available, visit the Database for State Incentives for Renewables and Efficiency, a project funded by the DOE, at www.dsireusa.org.**
- **For general information about renewable energy and energy efficiency, including an explanation of how these technologies work, go to the National Renewable Energy Laboratory Web site at www.nrel.gov/learning.**
- **A previous Ruralite story explaining the energy-efficiency tax credit includes answers to frequently asked questions about qualifying projects. To find the story, go to www.ruralite.org/news and click on "Stimulating Energy Improvements."**

Use IRS Form 5695 when filing for the residential efficiency tax credit.

Photo by Mike Teegarden

Appliances That Save You Money

Look for Energy Star rating and check performance with EnergyGuide label

By Mike Federman

When buying a new appliance, several tools are available to help consumers save money on their utility bills.

Energy Star is a program of the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE) that began in 1992 to identify and promote energy-efficient products to reduce greenhouse gas emissions.

The Energy Star label can be found on more than 50 product categories, including major appliances, office equipment, lighting and home electronics.

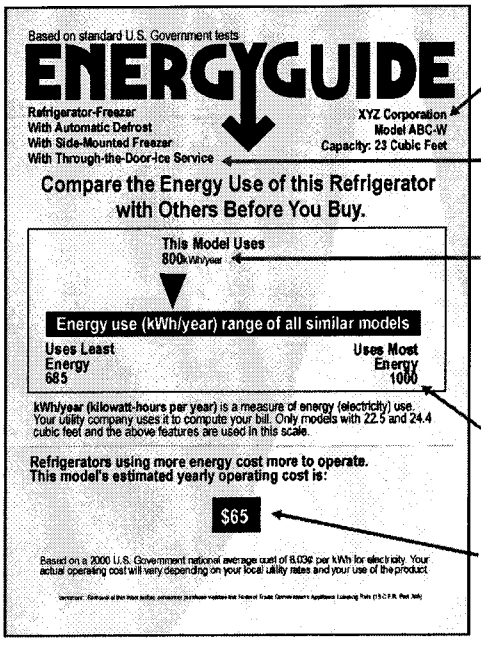
The typical household spends $1,900 a year on energy bills. With Energy Star, you can save up to 30 percent—more than $600 a year—while helping to limit greenhouse gas emissions.

With the help of Energy Star, U.S. consumers in 2006 avoided greenhouse gas emissions equivalent to those from 25 million automobiles in 2006—up from 23 million in 2005—while saving more than $14 billion on their energy bills, according to the EPA.

Conservation Measure

Energy Star refrigerators use at least 15 percent less energy than required by federal standards and 40 percent less energy than conventional models sold in 2001.

Energy Star dishwashers use at least 41 percent less energy than the federal minimum standard for energy consumption. These dishwashers also use much less water than conventional models—an added bonus for conservation-minded consumers.



Manufacturer, model and capacity.

Appliance type, features and size.

Appliance's annual energy use. The farther the arrow is to the left, the less the appliance costs to use.

The range of energy use for similar appliances.

Estimated annual operating cost.

Because they use less hot water compared with new conventional models, an Energy Star dishwasher saves about $90 over its lifetime.

Read the Fine Print

Energy-Star-qualified appliances must carry the yellow EnergyGuide label (shown above).

Manufacturers use standard testing developed by the DOE to prove the energy use and efficiency of their products. Test results are printed on the EnergyGuide label, which manufacturers are required to display on many appliances.

This label estimates how much energy the appliance uses, compares energy use of similar products and lists approximate annual operating costs.

Some appliances, such as clothes dryers, kitchen ranges and microwave ovens, are exempt from the EnergyGuide label because there is little difference in energy use between different models.

Rebates Available

Many utilities offer rebates on Energy Star appliances, such as refrigerators, freezers, dishwashers and clothes washers. Check with your local utility to see if you qualify for a rebate.

To learn more about the Energy Star program, go to www.energystar.gov. The Web site offers home-improvement tips and has categorized lists of Energy Star-qualified appliances and electronics. ■

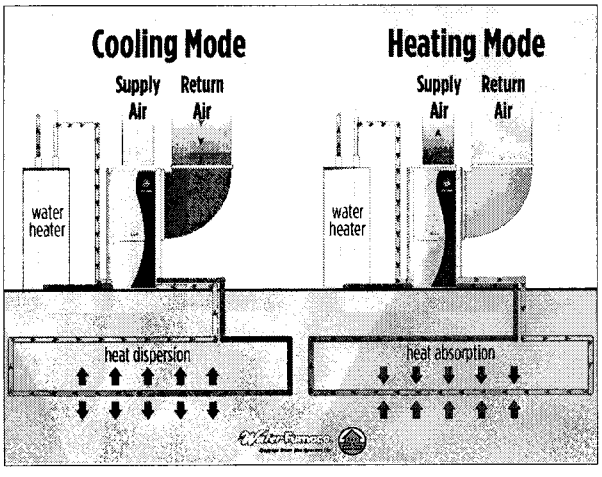
For more information about energy-efficient appliances and electronics, see page 26.

Geothermal Heat Pump is Ultra-Efficient

Q: I have thought about installing a geothermal heat pump for its efficiency and the tax credit. How efficient is one and how does it work?

A: Geothermal heat pumps are extremely energy efficient and generally yield the lowest utility bills of any residential heating and cooling systems. With the high cost of energy today and the available energy tax credit, installing one makes economic sense for some families.

A geothermal heat pump operates similarly to a standard heat pump, except it exchanges heat with the ground instead of the outdoor air, essentially using renewable energy from the sun's rays that are stored as heat in the ground.



The schematic shows how a geothermal heat pump works during summer and winter.

Photo courtesy of WaterFurnace..

The temperature of the outdoor air can vary greatly, but the temperature several feet below the ground surface varies relatively little.

To capture the heat energy from the ground in the winter or exhaust the heat during the summer, a long pipe is usually buried in the ground. An antifreeze/water solution running through the pipe acts as the heat transfer medium.

Since no outdoor condenser coils and fans are needed, the entire heat pump and all mechanical components are in an indoor unit. With no outdoor fan or compressor, it operates quietly.

In the heating mode, a geothermal heat pump can produce up to $5 worth of heat for each dollar on your electric bill. Unlike standard heat pumps, which lose efficiency and maximum heat output as the outdoor temperature drops, the efficiency and heat output from a geothermal pump is relatively constant.

Moist ground has a huge thermal energy storage capacity, so the amount of heat your system pulls out to warm your house has little effect on the ground temperature. The most efficient models use a two-stage compressor and variable-speed indoor blower for the best comfort.

During summer, a regular heat pump or central air conditioner loses efficiency and cooling output when it is hotter outdoors. Unfortunately, this is when your house requires the greatest cooling capacity. Cooling efficiencies for geothermal units are as high as 30 EER (energy-efficiency ratio). A standard heat pump or central air conditioner is typically less than half as efficient.

Another summertime advantage is free hot water when the geothermal heat pump is cooling your house. Waste heat is diverted to your water heater.

The initial cost of installing a geothermal heat pump is significantly more than a standard air-to-air heat pump. But the federal energy tax credit, which provides a 30-percent tax credit covering the entire cost of installing a geothermal heat pump, makes the initial expense more affordable.

To qualify for the credit, the efficiency of the unit must meet or exceed Energy Star requirements and be installed after December 31, 2007, and before December 31, 2016. Units installed in 2008 were subject to a $2,000 cap on the credit, so if you already have installed one during 2008, you can amend your 2008 taxes and still take the credit.

For any units installed in 2009 through 2016, you can take advantage of the full 30-percent tax credit.

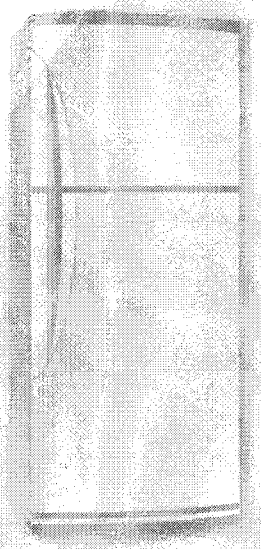
File for the credit by completing the Renewable Energy Credits subsection on your tax return forms. No proof of purchase is required; however, in case of an audit, keep a detailed invoice of your purchase. The contractor who sold and installed the product should list the purchase as a "Geothermal Heat Pump" on the invoice and note that it "exceeds requirements of Energy Star program currently in effect." ■

To ask a question, write to **James Dulley**, Energy Report, 6906 Royalgreen Dr., Cincinnati, Ohio 45244, or check his Web page, **www.dulley.com**.

Plug Into Energy Savings

Refrigerators

Energy Star-qualified refrigerators require about half as much energy as models manufactured before 1993. Refrigerators manufactured before 1993 cost more than $50 a year extra to operate than new Energy Star models. Refrigerators manufactured before 1980 cost about $150 more a year.

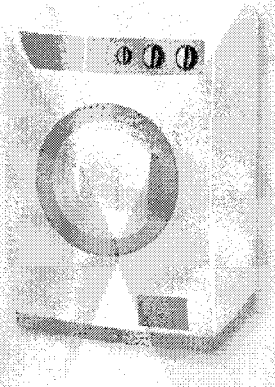


Here are some ways to ensure energy efficiency from your refrigerator:

- Position refrigerator away from a heat source, such as an oven, dishwasher or direct sunlight from a window.
- Allow air to circulate around condenser coils; keep coils clean.
- Keep your refrigerator between 35 F and 38 F and your freezer at 0 F. ■

Clothes Washers

An Energy Star-qualified clothes washer greatly reduces energy and water consumption, cutting utility bills by an average of $50 a year. They come in front-loading and advanced top-loading models. Front-loaders tumble clothes through a small amount of water instead of rubbing clothes against an agitator in a full tub.



Advanced top loaders use sophisticated wash systems to flip or spin clothes through a reduced stream of water. Both designs reduce the amount of hot water used in the wash cycle and the energy used to heat it.

Energy Star clothes washers save 7,000 gallons of water a year. During the average 11-year life of the washer, that is enough water to provide a lifetime of drinking water for six people. ■

Computers

Many personal computer models carry an Energy Star rating. A computer with a "sleep mode" that runs on 15 watts or less can save up to 70 percent more energy when not in use than models without a power management feature.

Consider putting your computer in sleep mode any time you are away from it for more than 20 minutes. Screen savers are not energy savers. Screen savers can use more energy than not using one, and the power-down feature might not work if a screen saver is active. ■

Grid Friendly

The future of electronics has arrived with smart appliances that can be programmed via the Internet to give consumers more control over their energy use.

The Pacific Northwest GridWise Demonstration Project found that advanced technologies enable consumers to participate in improving power grid efficiency and reliability, while saving money in the process, according to the Pacific Northwest National Laboratory, a U.S. Department of Energy research facility in Richland, Washington.

On average, consumers in Oregon and Washington who participated in the 2006-2007 project saved about 10 percent on their electricity bills.

Devices tested included programmable thermostats, water heaters and clothes dryers.

"We're not talking about traditional demand response where consumers have little or no control," program manager Rob Pratt said in a news release. "We're talking about putting the power into the hands of the consumers, who can customize their energy use. ... They can check the financial implications of their decisions at any time, and adjust or override their settings whenever they choose." ■

For more information about energy-efficient electronics and appliances, see page 8.

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Chief Executive Officer's Message

SSVEC and the Smart Grid

You may have heard by now that SSVEC was selected for an American Recovery and Reinvestment Act (ARRA) grant for $15,567,349 for a Smart Grid Modernization project.

Creden W. Huber

We will have to match that grant with $15,567,349 of our money. This grant reduces our investment and will allow us to complete this work sooner than we could have without the grant. This was a joint grant application with Southwest Transmission Cooperative (SWTC), our transmission provider, and Mohave Electric Cooperative in Bullhead City. The total grant for this group was $32,244,485 and our share is 48 percent. SWTC filed the application for the group, so you may not actually see SSVEC's name listed in some of the general public announcements about utilities that received grants, but let me assure you we are there.

The first question we get asked is what is the Smart Grid? There is not one standard answer to that question. Everyone in the industry has a different answer. A simple answer is the Smart Grid uses technology to make the electric transmission and distribution system work better for your cooperative and for you. So how is that accomplished? Several characteristics describe the Smart Grid.

- **Intelligent**—capable of sensing system overloads and rerouting power to prevent or minimize a potential outage; of working autonomously when conditions require resolution faster than humans can respond, and cooperatively in aligning the goals of utilities, consumers and regulators.
- **Efficient**—capable of meeting increased consumer demand without adding infrastructure.
- **Accommodating**—accepting energy from virtually any fuel source including solar and wind as easily and transparently as coal and natural gas; capable of integrating any and all better ideas and technologies—energy storage technologies, for example—as they are market-proven and ready to come online.
- **Motivating**—enabling real-time communication between the consumer and utility so consumers can tailor their energy consumption based on individual preferences, like price and/or environmental concerns.
- **Quality-focused**—capable of delivering the power quality necessary—free of sags, spikes, disturbances and interruptions—to power our increasingly digital economy and the data centers, computers and electronics necessary to make it run.
- **Resilient**—increasingly resistant to attack and natural disasters as it becomes more decentralized and reinforced with Smart Grid security protocols.

Continues on page 5

Currents

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Together We Save

Interactive Web site helps you find ways to reduce energy use and save money

Touchstone Energy cooperatives nationwide have launched a new Web site—www.togetherwesave.com—to help members examine ways they can reduce their energy consumption.

While not providing individual dollar-for-dollar savings accuracy, the interactive activities do show how reducing energy use can reduce costs. The site shows savings from taking simple steps, such as replacing incandescent light bulbs with compact fluorescent lights, to more significant changes, such as purchasing new energy-efficient appliances or adding insulation.

On the site, you will find more than a dozen informative energy-saving videos. Several provide step-by-step guides for a variety of energy-efficiency makeover projects.

The calculators are based on a 3,000-square-foot home in the middle of the United States.

Both fun and informative, the virtual home tour allows visitors to choose a variety of energy-reducing strategies, while an online calculator tabulates overall savings. ■

November 2009
Vol. 44, No. 6

Return To Vietnam 12

As part of his healing process, an Oregon veteran travels back to Vietnam 42 years after serving in the war there.

Also In This Issue

Fiberglass Frames Save Energy

Q: I need efficient replacement windows for my home and I want low maintenance ones. Do they make replacement window frames from fiberglass, which hold up well?

A: Everyone would like to have low-maintenance windows that require only cleaning of the glass and an occasional inspection of the weather stripping and hardware. The type of window frame is a major factor affecting the level of required maintenance.

The inside surface of this fiberglass frame window can be stained like real wood veneer or painted any color.

Photo courtesy of Marvin Windows

Fiberglass-framed replacement windows require little maintenance. I replaced the windows in my home with efficient vinyl frame windows about 20 years ago. If fiberglass frame replacement windows had been available then, I would have selected them over most other frame materials.

The fiberglass frame material used in replacement windows is as durable as the fiberglass in the hull of a boat, but it is manufactured differently.

Most fiberglass window frames are made by a "pultrusion process." Long parallel glass fibers, as opposed to a layered mat, are pulled through an extrusion die in the shape of the cross-section of the window frame. Liquid plastic resin flows throughout the fibers and, with heat, sets up and becomes solid. The pultrusion is about 70 percent glass fibers and the rest resin.

Fiberglass frames in replacement windows offer many advantages. Since the main component of the fiberglass frame is glass, the frame expands and contracts with temperature changes about the same rate as the glass panes themselves. Vinyl frames, which also are low maintenance, expand more than glass as the temperature changes. This is one reason why dark vinyl frames in large windows are sometimes not recommended for a sunny exposure in hot climates.

In a window sash, the glass panes are held and sealed in the sash frame by one of various methods. Since the fiberglass frames expand and contract about the same as the glass panes, there is less movement and stress where the panes fit into the sash frames. For this reason, with fiberglass frames a dark color can be used in almost any climate or orientation to the sun.

Another advantage of pultruded fiberglass is its strength and impact resistance. This is important with replacement windows, because the frame does not have a perimeter flange as with new construction windows. Replacement windows are often attached in the old window opening with several screws along each side.

The strength of the fiberglass allows narrower frame profiles to be used than for some other frame materials. This provides more glass area for more light and a better view outdoors. Especially for smaller windows, a thick replacement window frame can use up too much of the opening to be useful.

Since natural wood frame interiors are popular, several manufacturers offer windows with optional real wood interior veneers attached to the fiberglass frame. From indoors, they look like wood windows, but without as much maintenance.

The following companies offer efficient fiberglass frame windows:

- Comfort Line
(800) 522-4999
www.comfortlineinc.com

- Fibertec
(888) 232-4956
www.fibertec.com

- Marvin Windows
(888) 537-7828
www.infinitywindows.com

- Milgard Windows
(800) 645-4273
www.milgard.com

- Weather Shield
(800) 222-2995
www.weathershield.com. ■

To ask a question, write to **James Dulley**, Energy Report, 6906 Royalgreen Dr., Cincinnati, OH. 45244, or check his Web page, **www.dulley.com**.

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Chief Executive Officer's Message

Controlling the Cost of SSVEC's Purchased Power Contracts

Creden W. Huber

The rate increase proposed by Sulphur Springs Valley Electric Cooperative (SSVEC) and approved by the Arizona Corporation Commission (ACC) went into effect with September usage. We have explained several times during the past 1½ years that this is the first rate increase for SSVEC since 1993.

Your cooperative's board of directors and management made the decision to seek the increase after careful review of the cooperative's financial situation. Our intent now is to use every possible means to contain costs and to postpone our next rate case well into the future.

Several factors challenge SSVEC in its efforts to control and drive down costs, where possible. The rising cost of materials—lines, poles and equipment—the need to constantly maintain and upgrade portions of the electrical system and meeting the increasing electricity needs of the constant growth in our service area are three of those factors.

Recently, one of the most volatile costs has been purchased power. With increases in the cost of the fuels used to generate electricity and of transportation—rail costs, in the case of coal—our members have seen an increase in their electric bills.

SSVEC passes through the cost of purchased power without a "mark up" to its members. However, the ACC allows utilities to add a fuel adjustment line on monthly electric bills to cover these increased costs. As a result, our members' electric bills increased even though our actual rate remained unchanged.

Your cooperative anticipated the potential for purchased power price fluctuations some years ago. In an effort to control this cost, SSVEC took initial steps in 2003 to gain the ability to shop for lower priced electric power.

Since 1961, SSVEC had been a full requirements member of Arizona Electric Power Cooperative (AEPCO)—a generation and transmission cooperative right here in Cochise County. As a "full requirements" member, we were obligated to purchase 100 percent of our electric power from AEPCO at its rate approved by the ACC. Our analysis showed we could purchase some of our electric power on the open market at a lower price.

SSVEC's Board of Directors initiated action to change our contractual agreement with AEPCO and become a "partial requirements" rather than a "full requirements" member.

The revised contract was completed in 2008. This action has paid off in that we have entered into contracts with other power suppliers. SSVEC's current power cost is $0.07897 per kilowatt-hour (kWh). Other electric cooperatives in the state have rates between $0.09530 and $0.10068 per kWh.

Our goal remains to pay the lowest possible power costs for our members.

Your cooperative will continue to strive for ways to increase efficiencies and lower costs in all ways possible, including its daily operations, equipment purchase and competitive financing of loan funds.

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Do-It-Yourself Home Energy Audits

One of the first steps to making your home more efficient involves understanding how it uses energy. Just as a doctor has to do a thorough examination of a patient before writing a prescription, your home needs a good inspection before most inefficiencies can be identified and corrected.

You can conduct a basic home energy audit with a simple, but diligent, walk-through. When auditing your home, keep a checklist of areas you have inspected and problems you find.

Full lists are available at Touchstone Energy Cooperatives Home Energy Saver, www.touchstoneenergysavers.com, and the Alliance to Save Energy Home Energy Checkup, www.ase.org.

Most trouble spots can be found in a few key areas. More information on do-it-yourself and professional energy audits can be found at www.energysavers.gov.

Heating/Cooling

Inspect heating and cooling equipment annually, or as recommended by the manufacturer. Check filters and replace them as needed.

Lighting

Lighting accounts for about 10 percent of a home's electric bill. Consider compact fluorescent bulbs where lights are left on for hours at a time.

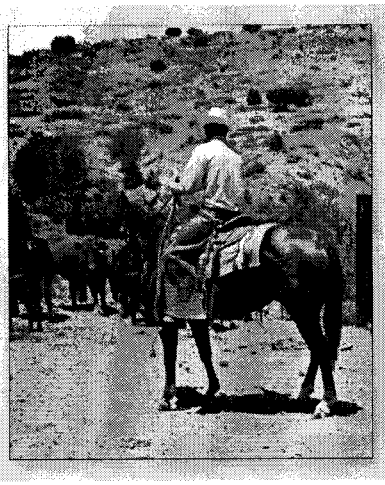
Air Leaks

The energy savings from reducing drafts in a home range from 5 percent to 30 percent a year. Check for indoor air leaks along a baseboard or edge of the flooring, and at junctures of walls and ceilings. Inspect windows and doors. If you can rattle them, it means possible air leaks. Inspect all areas where two different building materials meet. Seal cracks or holes in the mortar, foundation and siding. Check caulking around doors and windows.

Insulation

Your house likely has the amount of insulation recommended at the time it was built. Given today's energy prices, that might be inadequate, especially if you have an older home. Online audits provide more details on checking insulation levels in the attic, walls and basement.

Source: U.S. Department of Energy Office of Energy Efficiency and Renewable Energy



September 2009
Vol. 44, No. 5

Growing Up Country 12

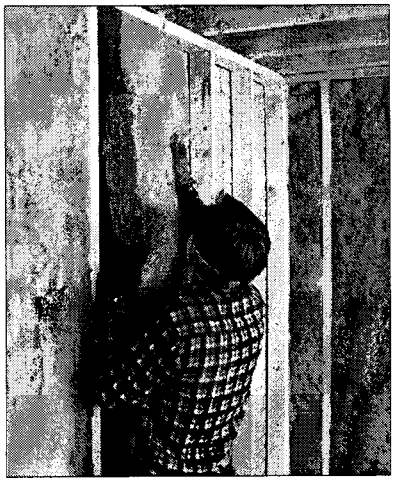
Raising a family in a rural area has its challenges and rewards.

Also In This Issue

Wrap It UP

Insulate your home to improve year-round comfort and save energy

By Pam Blair



One of the best ways to improve energy efficiency is to add insulation to the walls and all other parts of a home (see illustration on page 7).

Photo and illustration courtesy of Owens Corning.

Checking your home's insulation and sealing the "envelope"—its outer walls, ceiling, windows, doors and floors—is one of the most cost-effective ways to improve comfort, reduce energy waste and make the most of your energy dollars.

According to the U.S. Department of Energy (DOE), heating and cooling account for 50 percent to 70 percent of the energy used in the average American home. Insulating can save 20 percent to 30 percent on those costs.

The amount of energy conserved will depend on several factors: climate; the size, shape and construction of the house; the family's living habits; the type and efficiency of the heating and cooling systems; and the fuel used.

For maximum thermal efficiency and comfort, it is important to insulate any space where energy could be lost.

Insulation is not just for attics and outside walls. It also should be installed in floors over unheated spaces, basement walls, floors above vented crawl spaces, cathedral ceilings, floors over unheated garages or porches, foundations, and between interior walls, ceilings and floors. In hot climates, radiant barriers should be considered for new construction.

How Insulation Works

Insulation blocks heat loss in winter and heat gain in summer, keeping your home warm in winter and cool in summer.

Insulation is measured in R-values. The higher the R-value, the better your home will resist the transfer of heat.

The thicker or more dense the insulation, the more air pockets it will have and the higher its R-value.

Different R-values are recommended for walls, attics, basements and crawl spaces, depending on your area of the country. DOE bases its R-value recommendations on specific heating and cooling needs and the cost of energy across the country, ZIP code by ZIP code.

State and local code minimums may be less than DOE recommendations, which are based on cost effectiveness.

Types of Insulation

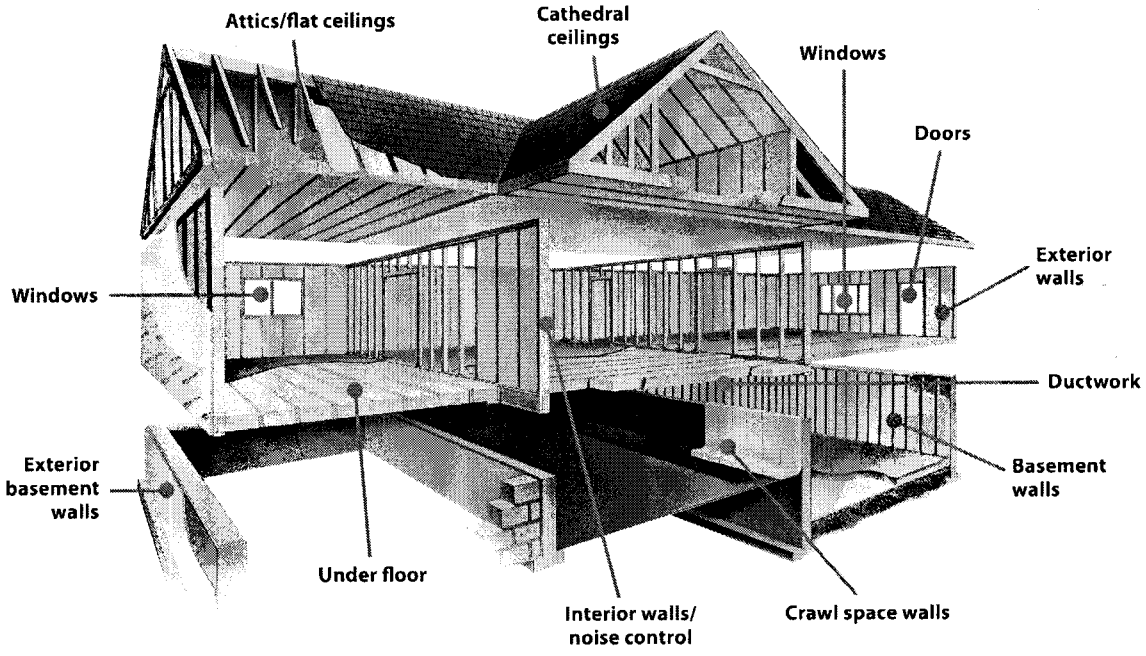
Insulation is made from a variety of materials, but usually comes in four types:

- **Rolls and batts (blankets)**—are flexible products made from mineral fibers, such as fiberglass and rock wool. They are available in widths that match most wall studs and attic or floor joists.
- **Loose-fill insulation**—loose fibers or pellets usually made of fiberglass, rock wool or cellulose—is blown into spaces using special equipment. Because the material conforms to building cavities and attics, it works well where it is difficult to install other types of insulation.
- **Rigid foam insulation**—typically more expensive than fiber insulation—is effective where space is limited and higher R-values are needed. Its R-value is up to double most other insulating materials of the same thickness.
- **Foam-in-place insulation**—which can be blown into walls—reduces air leakage if blown into cracks, such as around window and door frames.

Creating a Thermal System

A good insulating system includes a combination of products and techniques that protect a home from outside temperatures, air leaks and moisture:

- **Plug leaks.** Insulation works best when air is not moving through or around it, so it is important to seal leaks before installing insulation. Reducing air infiltration can dramatically improve a home's thermal performance, saving up to 10 percent a year on annual energy costs, according to DOE. Most air infiltration occurs through the ceiling and floor. Caulk, seal and weather-strip around all seams, cracks and openings.
- **Let it breathe.** When your attic or crawl space is properly ventilated, a positive airflow is created. In hot weather, proper ventilation prevents the attic from becoming a hot box that spills unwanted heat through the attic floor into the living area. In cold weather, it helps prevent moisture from condensing on the rafters or roof and dripping into the insulation.



• **Control moisture.** Showers, cooking, washing and even breathing adds moisture to the home. Vapor retarders help control the amount of moisture passing through insulation and collecting inside exterior walls, ceilings and floors.

Maximizing Insulation Benefits

The attic is one of the easiest and most important areas of a home to insulate. DOE recommends up to R-60 for attics in most areas. This is equal to about 18 inches of fiberglass blanket insulation. Most older homes have 3 to 6 inches.

To learn how much more insulation your home needs, measure the thickness of your attic's existing insulation with a ruler. Take the thickness and multiply by 3.14 to get its approximate R-value.

If your attic has enough insulation and your home still feels drafty and cold in the winter or too warm in the summer, chances are you need to add insulation to the exterior walls. This is a more expensive measure that usually requires a contractor, but it may be worth the cost.

You also may need to add insulation to your crawl space or basement.

If the insulation doesn't fill small gaps, its efficiency diminishes drastically. Materials should not gap around obstructions. Holes, joins and ends of the insulation should be well sealed or closed.

Because they eliminate gaps, sprayed-on foam and loose-fill insulation are, in many situations, excellent choices.

Allow clearances around electric appliances and flues, fans and light fittings. Ask a professional electrician to inspect surfaces where an insulation material may interact with electric cables.

Recessed light fixtures can be a major source of heat loss, but be careful how close you place insulation next to a fixture unless it is marked IC—designed for direct insulation contact. Check local building codes for recommendations.

Choose the appropriate insulation product—R-value, thickness and width—for your project. Fiberglass insulation works on the principle of trapped air pockets. Compressing it decreases the amount of air trapped and the R-value. ■

Owners of existing homes qualify for a federal tax credit worth 30 percent of the cost of upgrading the efficiency of the building's envelope—including insulation materials to reduce a home's heat loss or gain—up to $1,500. Labor costs are not included.

When to Add Insulation

- You have an older home and have not added insulation. Only 20 percent of homes built before 1980 are properly insulated.
- You are uncomfortably cold in the winter or hot in the summer. Adding insulation creates a more uniform temperature and increases comfort.
- You build a new home, addition or install new siding or roofing.
- You pay high energy bills.
- You are bothered by noise from outside. Insulation muffles sound.

LEED: Building Efficiency From the Ground Up

Q: I plan to design and build a new house, and I want it to be energy efficient. I hear LEED-certified houses can qualify for reduced property taxes. What exactly is a LEED house, and is it energy efficient?

A: LEED stands for Leadership in Energy and Environmental Design. LEED is a certification procedure developed by the Washington, D.C.-based U.S. Green Building Council (USGBC) to promote environmentally responsible and sustainable housing. LEED-certified houses are not only efficient from energy and material standpoints, they can be more healthy to live in.

Solar water heating panels are installed on the south-facing side of the roof of this LEED-certified home under construction.

Photo courtesy of Deltec Homes.

LEED houses have lower overall operating costs and increased value at time of resale. During construction, waste is reused or recycled to reduce the amount sent to landfills. By design, the houses conserve water and reduce greenhouse gas emissions.

LEED-certified homes generally cost more upfront than a comparable house built to typical building codes. But when you consider the energy savings, water savings and possible tax abatement, the benefits of certification will quickly make up for its higher initial cost. The maximum annual property tax abatement depends on the certification level of the house. Contact your local tax authorities to see what tax abatements apply in your area.

To build a LEED house, you or your builder must apply for certification through the U.S. Green Building Council. The registration fee for a single family house is about $150 to $225. You must be able to verify the types of materials, equipment and appliances used throughout the new house. It will help to select a contractor who has built certified LEED houses before.

You must also find a certified inspector to visit your house during construction to determine the total number of points you get toward certification. A house is given points for various material and conservation criteria—something as simple as using decking screws and fasteners made partially from recycled metals may gain a LEED point. For a residence, there are 108 possible points. If a house reaches 30 points, it is a LEED-certified house. At 50 points, it is certified "silver"; at 70 points it is "gold"; and at 90 points it is "platinum."

Energy-efficiency features gain the most LEED points, a maximum of 16. The features must be extremely energy efficient, not just what the manufacturers call their energy-efficient product line. Extraheavy insulation—higher than code standards—earns one point. Reducing air leakage from 0.35 air changes per hour to 0.15 yields two points. Installing windows that are 20 percent more efficient than Energy Star requirements provides two points. A better furnace gets three points.

Many items that gain LEED points are common today. Installing compact fluorescent bulbs in 80 percent of the light fixtures gets one point. Using low-VOC paint for less air pollution and healthier indoor air quality also earns a point.

It is not extremely difficult to build a LEED house. Deltec Homes, a maker of build-it-yourself circular panelized houses, recently earned a platinum certification for a house built in New Orleans. The circular house looks similar to their other standard houses and it was built in only about 100 hours.

There are several third-party "LEED for Homes" providers—usually part of the Residential Energy Service Network at www.resnet.us—who work with the USGBC. They contract with qualified local home inspectors to follow and rate houses registered for LEED certification.

For more information about LEED-certified homes, including project registration guidelines and a full list of those providing technical, marketing, and verification support to builders, visit www.usgbc.org. ■

To ask a question, write to **James Dulley**, Energy Report, 6906 Royalgreen Dr., Cincinnati, Ohio 45244, or check his Web page, **www.dulley.com**.

Sun Now Helps Power Castro Electric Warehouses

Castro Electric

Phone: (520) 459-6766
e-mail: asuhajda@1md-inc.com

- Began in Sierra Vista in 1984, working out of Castro's house.
- Moved to 999 E. Fry Blvd. in 1990.
- Moved to present location on Highway 90 in 2005.
- Phased out residential work in 2004 to focus on general and electrical contracting and commercial wiring.
- Has completed contract work in Phoenix, Tucson, Yuma, Nogales, Douglas and Willcox, as well as locations in New Mexico and Texas.

Val Castro knows something about growing a business and seizing opportunities. When he brought his electrical contracting business to Sierra Vista in 1984, Castro Electric had four employees: Castro, his wife and two workers.

The company has grown. Today, it has 43 employees and contracting jobs throughout the Southwest.

And seizing opportunities? The latest example is Castro installing photovoltaic (PV) solar panels on his warehouse facility along Highway 90, east of Sierra Vista.

"I've been planning the addition of solar to my business for the past year," he says.

Castro admits the rebate program offered by Sulphur Springs Valley Electric Cooperative (SSVEC) helped him make the decision to act now.

Al Gomez, energy management services specialist for SSVEC, says Castro Electric is the first commercial member to take advantage of the cooperative's rebate program. That program offers $4 per installed watt of electricity capacity up to half the cost of the unit and installation.

Installed by the Experts

The decision to "go solar" made sense because Castro Electric knows the photovoltaic technology.

Val Castro, president of Castro Electric, left, and Albert Gomez of SSVEC examine the 210-watt panels that make up the rooftop array.

"In fact, we did the installation of the PV panels for SSVEC's recent solar shade project," he says.

That involved the cooperative placing 41 solar arrays at public schools throughout its service area.

Benefits of the System

The most obvious benefit is the electricity savings.

Gomez estimates Castro's 22-kilowatt system will produce about 3,100 kilowatt-hours of electricity each summer month to offset the company's usage.

What's next?

"I'm looking at installing solar water heating, since that is also part of SSVEC's rebate program," Castro says. ■

Daniel Castro, left, and Steven Hyde, electricians for Castro Electric, align PV panels on one of the company's warehouses.

Photos by Wayne Crane.

Searching For Green Electricity

Renewable energy sources seem to be popping up everywhere, but they remain a small part of the nation's energy mix—and come at a premium price

By Pam Blair and Megan McKoy

When it comes to meeting electricity needs, solar panels and wind turbines have captured the public's imagination. But the perception of the technologies does not come close to matching their contribution to our nation's energy mix.

Asked where most electricity will come from in 15 years, 72 percent of Americans surveyed by Bisconti Research Inc. believe solar will reign supreme, followed by wind. But projections from the U.S. Energy Information Administration (EIA) paint a different picture. Under the most likely scenario, wind will generate 2.4 percent of our country's energy and solar just 0.2 percent by 2030.

Renewable sources could take a big leap forward if Congress follows the lead of 28 states and the District of Columbia and sets renewable portfolio standards.

Those require investor-owned utilities, competitive retail electric generation suppliers, and some municipal systems and electric cooperatives to add increasing amounts of "clean and green" electricity to their power supply mix. Requirements range from 10 percent to 30 percent, with target dates between 2018 and 2025.

Finding and Buying Renewables

Setting standards is one thing. Meeting them is another. Not all utilities have easy access to renewable energy.

Still, according to the U.S. Department of Energy, more than half of retail customers in the United States have the option to buy a green power product from their electricity supplier. Green power refers to electricity supplied from renewable energy sources, such as wind, solar, geothermal, hydro and biomass.

Through optional green pricing programs, consumers can choose to pay a premium on their electric bill to cover above-market costs of acquiring renewable energy resources.

Consumers also can support renewable energy development by buying green energy certificates. A variety of organizations offer renewable energy certificates—also known as green tags, green energy certificates or tradable renewable certificates. They represent purchase of the environmental attributes of power generated from renewable electric plants.

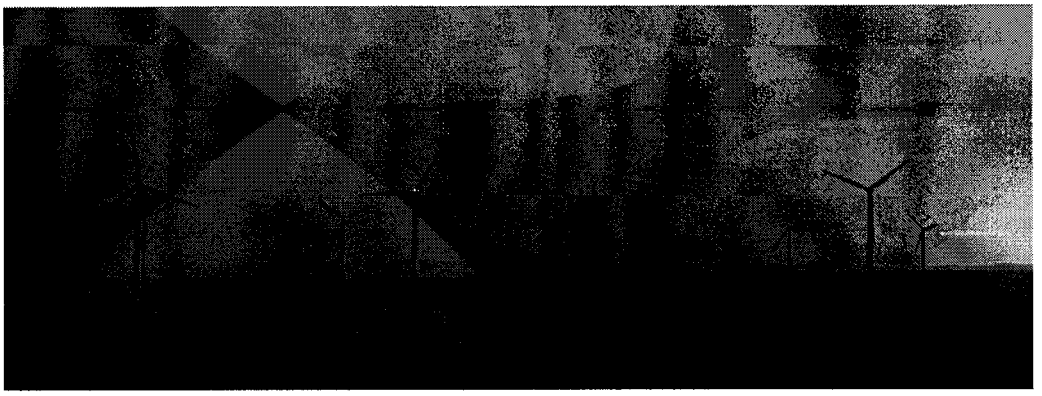
In either case, supporting green power comes at a premium price.

Examining the Difference In Cost

Wind power costs 30 percent more than natural gas-fired energy, and solar costs twice as much, according to Cambridge Energy Research Associates—an adviser to energy companies, governments, financial institutions and technology providers.

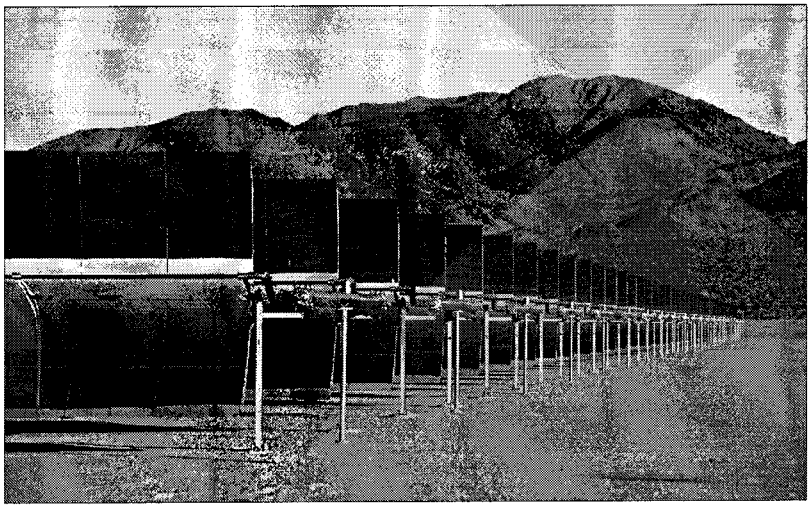
State and federal tax incentives for developing renewables reduce the gap, but the economics aren't straightforward.

Because the wind doesn't always blow and the sun doesn't always shine, they must be backed up by generation sources available 24 hours a day, 365 days a year.



Wind turbines at the Klondike Wind Farm spin as the sun sets on the Columbia River Gorge in Oregon.

Photo courtesy of Iberdrola Renewables.



The sun's rays reflect off panels at Nevada Solar One. The 400-acre, 64-megawatt plant harnesses enough energy to power more than 14,000 homes a year. It is the third-largest concentrating solar power plant in the world.

Photo courtesy of Acciona.

That adds to the cost of renewables.

While many renewable projects are built in rural areas, the electricity produced often must be delivered to faraway cities—and current transmission lines are not adequate. More lines must be built.

That also adds to the cost of renewables.

EIA sees more favorable pricing on the distant horizon. In a 50-page report, the federal agency concludes that if the United States were to get 25 percent of its electricity from renewable sources by 2025, demand for coal and natural gas would slacken, and the price of fossil fuels would fall—offsetting the additional cost of developing green resources.

However, through at least 2020, not enough renewable energy will be on the U.S. grid to offset coal and natural gas use, the report says, so taxpayers and utility customers will continue to subsidize renewables without lowering electric bills.

EIA's estimates are hazy on the issue of new transmission lines, though. Energy Secretary Steven Chu says a national electric superhighway will be needed. The Energy Department says that likely will cost $60 billion. ■

Want to Reduce Your Carbon Footprint?

Some utilities offer the option to support renewable energy projects, but others do not. Either way, you can invest in green energy.

The Bonneville Environmental Foundation (BEF) Web site, **www.b-e-f.org**, allows you to measure the amount of greenhouse gas you produce—your carbon footprint. The site's carbon calculator examines your home, vehicle and air transportation for carbon dioxide impact. Individuals then can buy "carbon offsets" to address all or part of their environmental footprint.

The carbon offsets replace polluting sources of electricity with clean, secure, sustainable energy from solar and wind power generated across North America. That reduces the nation's dependence on fossil fuels, which results in less carbon dioxide being released into the environment—and a smaller footprint for you.

BEF carbon offset purchases include the following:

- Tax-deductible contribution acknowledgement letter
- Product content label with information about the BEF and Green-e® Climate certification
- Powered by "Clean Energy" window static-cling sticker
- Membership to the BEF's quarterly e-newsletter

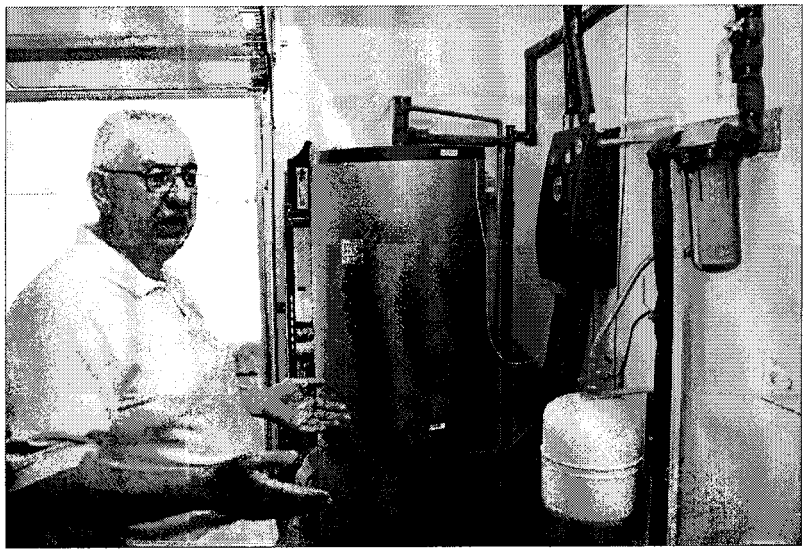
The minimum purchase amount is $20, which is equivalent to offsetting 1,500 pounds of carbon through wind energy.

For more information about the Bonneville Environmental Foundation, or to calculate your footprint, see www.b-e-f.org.

More Homeowners Try Renewable Energy

Solar water heaters, photovoltaics and even windmills become part of residential landscape

By Mike Federman



John Hackett discusses his solar water heater in the garage of his Pahrump, Nevada, home. Seen from left are an insulated water tank, the solar control panel, an overflow tank and a water filter.

When John Hackett moved to Pahrump, Nevada, from Las Vegas five years ago, the first thing he did was investigate the possibility of using renewable energy at his home to lower his electric bill.

During his career in the U.S. Navy, John visited and lived in many countries where the use of renewable energy was commonplace.

"In Japan, everyone has a solar water heater," he says. "In Iceland, they use geothermal. How come we don't do that here?"

John decided to have a solar water heater installed at his new 1,900-square-foot home. He participated in a Valley Electric Association (VEA) pilot program to determine the cost efficiency of solar water heaters, and paid only half the cost of the $6,000 unit.

John's goal was to reduce his utility costs.

During his 18 years in Las Vegas, John saw his monthly electric bill rise from $65 to $100, while also paying other utility bills. Now he is on VEA's balance pay plan, which averages out electric use for an entire year.

"I pay $150 a month, but that's the only bill I pay," he says of his all-electric home.

Part of his savings comes from his solar water heater.

A study by VEA, which is based in Pahrump, and the Cooperative Research Network concluded that solar water heater users could see up to 11 percent annual savings on their electric bills.

Savings calculations are based on a variety of factors that include how much water is used by a household. The VEA study indicates savings are greatest when daily hot water use exceeds 60 gallons.

John and his wife, Tokie, have an 80-gallon solar water heater. They also have a conventional water heater for use in winter when solar radiation is not strong enough to produce all of the hot water they need.

"You have to adjust your lifestyle," John says. "In the winter, you don't jump up at 6 in the morning and jump in the shower. You wait until it warms up a little. Ultraviolet rays still come through the clouds. On a cloudy day, you still get hot water."

The success of the Domestic Solar Water Heating pilot program prompted VEA to pursue a business plan that would make solar water heating available to its members, says Staci Behnke, manager of community and governmental relations.

"We feel every home in our service territory should have solar water heating," Staci says. "But it has to be economically feasible for the membership, and a program that makes sense for the cooperative as well."

Tapping An Infinite Resource

The Southwest is rich in one of the primary elements necessary to make renewable energy work.

"We have so much sun here," says Dave Grieshop, a member of Sulphur Springs Valley Electric Cooperative (SSVEC), based in Willcox, Arizona. "You should take advantage of it."

Dave has harnessed the sun's energy through a photovoltaic (PV) array on the roof of his house and a solar water heater.

"I made an economic decision, not a financial decision," Dave says, likening his purchase of a residential PV system to investing in his future. "My out-of-pocket

continues on page 26

Renewables

continued from page 8

cost will be less than what I would pay for a new car. The car keeps depreciating, but the solar panels will keep generating power and lowering my energy costs."

Dave's 30-panel PV system at his Sierra Vista home was activated in March. He already has seen his energy costs drop, with one month's bill going from $165 last year to $94 this year.

His savings will get only better now that the Arizona Corporation Commission has approved net metering for the state.

Net metering is a process in which electricity produced by an individual is integrated with a local utility's distribution system. The utility credits the individual for energy generated up to the amount necessary to meet all of the member's electricity needs.

SSVEC will offer net metering to its members as soon as the cooperative establishes guidelines for meeting state requirements, says Wayne Crane, SSVEC manager of public relations.

SSVEC also offers its members financial incentives to build renewable energy systems. Through its SunWatts program, qualifying renewable energy programs can receive up to $4 per installed watt, or up to 50 percent of the total installed cost of the system, whichever is less.

Dave took advantage of the SunWatts program to significantly reduce the purchase cost of his system. He also received a federal tax credit, which was extended through 2010 by the Obama administration.

"I saw the federal government coming out with a 30-percent credit, and that was very appealing to me," Dave says.

He estimates his solar generation and energy savings will pay back the initial cost of his PV array in about 8½ years.

Dave followed the solar industry for more than 25 years. A career in the U.S. Army followed by civilian jobs in the aerospace industry and agricultural commodities allowed him to travel a lot and see renewable energy use in other countries.

"You have to look beyond the initial cost and look at if from a lifecycle cost," he says. "It adds value to your property. I'm investing in my personal infrastructure."

Capital Outlay for Financial Gain

Having some control over his future is a major reason Dick Karr built a 2.5-kilowatt (kW) wind turbine at Sawmill Creek Ranch, where he raises yaks in Delta Junction, Alaska.

"This is something I can have a steady income from for a long time," he says.

Through the Sustainable Natural Alternative Power (SNAP) program offered by Golden Valley Electric Association (GVEA), Dick adds the power he produces to GVEA's distribution system and is compensated through SNAP, which is funded by cooperative members who agree to pay a little more each month to support renewable energy.

In 2005, GVEA became the first electric utility in Alaska to offer its members a renewable energy program.

Dick's experience with wind power has been so successful he plans to raise a 20-kW turbine on his property this summer.

"I can upgrade because the wind is strong enough," says Dick, who does the ground preparation and construction himself.

He estimates he can pay off the cost of the new turbine in 10 years.

With his knowledge of wind, Dick now gets calls from other would-be producers.

"A lot of people are curious whether that is going to work or not," he says. "I think there is a benefit to it. I think the country is leaning toward renewable energy." ■

Getting Started

If you are considering installing renewable energy at your home, be sure to research permitting and other requirements that must be met to safely incorporate a solar or wind system with your local utility's distribution system.

Safety regulations, rebates, net metering and types of renewables that work best in your area should be considered before installing a renewable energy system at your home.

Rules and rebates for renewables vary by state, so it is important to do your homework before starting a project to ensure the lowest cost with the greatest efficiency.

Local wind regimes and solar effectiveness differ greatly from region to region. Understanding whether your home is suited for a specific type of renewable energy is critical for success. ■

Internet Resources

- Learn more about residential renewables at the U.S. Department of Energy's (DOE) National Renewable Energy Laboratory: **www.nrel.gov/learning/homeowners.html**
- The DOE's Energy Efficiency and Renewable Energy program is a clearinghouse of information about renewable energy: **www.eere.energy.gov**
- The Database of State Incentives for Renewables and Efficiency will search for state rebate programs and also lists federal incentives: **www.dsireusa.org**

Get Portable This Summer

Q: *I like fresh air, but my kids have allergies, so I sometimes close the windows and turn on the air conditioner. I thought about getting a portable air conditioner to use in various rooms. Would that be any more efficient?*

A: Using natural fresh air ventilation is always the most energy efficient, but outdoor allergens can be a problem for many people. In many cases, indoor air is more polluted than outdoor air. Check with your physician to make sure the allergens are truly coming from outdoors and are not indoor-generated.

This portable two-duct heat pump model will heat and cool efficiently year-round.

Photo courtesy of Soleus Air.

If you were going to air condition just for the clean air circulation, but not necessarily for cooling, several other options are available.

Heat recovery fresh air ventilation is a good option for year-round fresh air. Most systems include effective air cleaners to remove allergens from the fresh air before it enters the system.

Another option is ducting fresh air into the return air system. Run the system on "fan-only" with no cooling and allow a high-quality central air cleaner to remove the allergens. This is most efficient if your central air handler has an efficient variable-speed blower that can run at a relatively low speed.

Using a portable air conditioner also would be an effective solution.

A portable heat pump offers year-round savings. In addition to cooling the room during summer, it is an efficient portable heater during winter. It produces 14,000 Btu per hour (Btuh) of cooling and 11,000 Btuh of heating. This is much more heat output than a standard electric space heater using the same amount of electricity during winter.

The efficiency of a portable air conditioner is similar to a window air conditioner. Although this is less efficient than the newest central air conditioners, using one can still save money. By keeping just one or two rooms comfortably cool with clean air, you can set your central thermostat higher and save electricity. Use it in the dining room for dinner, roll it into the living room and then to the bedroom for sleeping.

Most operate on standard 120-volt electricity, so they can be plugged into any wall outlet near a window.

A portable air conditioner/heat pump operates similarly to a typical window unit. The internal rotary compressor, evaporator and condenser function in the same way. The primary difference is it is on castors and rests on the floor.

Most are light enough to easily roll from room to room. The higher-output model is fairly heavy. It would be difficult for most people to move it up and down stairs, but it still rolls easily.

Round air ducts, similar to dryer ducts, connect the unit to a window adapter. You open a window, place the adapter in the opening and close the window against it. This exhausts the heat outdoors when cooling.

There are two basic designs of portable units. One uses a single duct to the window adapter. This is the simplest system. The other design uses two ducts, which is more efficient. All of the air flowing through the condenser (which carries the heat away) is drawn from outdoors and exhausted back outdoors. With two ducts, no already-conditioned indoor air is exhausted outdoors.

The following companies offer portable air conditioner/heat pumps:

- Fedders:
  (609) 662-5300, www.fedders.com
- Soleus Air:
  (513) 985-1211, www.soleusair.com
- Windchaser:
  (800) 405-2943,
  www.windchaserproducts.com ■

To ask a question, write to **James Dulley**, Energy Report, 6906 Royalgreen Dr., Cincinnati, Ohio 45244, or check his Web page, **www.dulley.com**.

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Chief Executive Officer's Message

Stimulus Money for SSVEC

Creden W. Huber

The availability of federal stimulus money has been a topic of discussion for many of us this year. Although Congress approved a stimulus package months ago and you hear about stimulus money almost daily in the media, less than 5 percent of the money has been spent.

A portion of the money has been allocated and is awaiting completion of rules regarding eligibility and details of how it is to be spent.

While much of the funding is for counties, school districts and municipalities, money has been designated for electric utilities for various projects. These projects include the smart grid, building large transmission lines, renewable energy and a smaller amount for energy-efficiency programs. We are still awaiting the final rules on these programs.

Funding Opportunities for SSVEC

SSVEC has contracted with an experienced grant writer to follow the stimulus funding process and write grant proposals.

SSVEC also is working with our local communities' renewable energy projects and energy-efficiency programs for available stimulus money to assure our cooperation is a part of their application process. For example, Sierra Vista, Willcox and Patagonia all are considering requests for wastewater projects.

In addition, your cooperative is serving as a consultant for issues regarding electric service and the grant writing process.

It appears the first program SSVEC will be eligible for is the "smart grid." The smart grid is the interconnected electric system that will use state-of-the-art digital technology to increase reliability, save energy and reduce costs.

Based on the proposed rules, SSVEC will work with other Arizona electric cooperatives to secure stimulus money. This will enable our cooperatives to move forward and get the job done in a shorter period of time.

A second proposed program is a small matching grant for renewable energy—specifically renewable energy sources as part of the SSVEC electric system—through the U.S. Department of Agriculture.

SSVEC is in the process of writing a grant to obtain this money.

Other Developments

SSVEC recently submitted a grant that, if funded, will allow the co-op to hire and train a person to conduct energy audits at members' residences and businesses during a two-year period.

Finally, SSVEC is awaiting publication of initial rules for the Clean Renewable Energy Bonds. These are zero-interest bonds similar to the bond program SSVEC recently obtained to build the 41 school solar shade projects.

All of these projects will benefit our members. They will allow SSVEC to initiate programs sooner than otherwise possible, and will effectively spend the stimulus money rather than seeking an increase in electric rates from our members to pay for them.

We do not expect to get stimulus money, but if we do, this will reduce the costs of these needed projects.

EXHIBIT C

Sulphur Springs Valley Electric Cooperative, Inc.
A Touchstone Energy® Cooperative

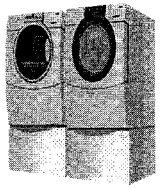
101 Low-Cost / No-Cost Home Energy- Saving Measures

Water Heating

1. Set water heater temperature no higher than 120□F.
2. For households with 1 or 2 members, a 115□F setting may work fine.
3. Install water-heater wrap per manufacturer's instructions.
4. Drain 1-2 gallons from the bottom of the water heater each year to reduce sediment build-up.
5. Install heat traps on hot and cold water lines when it's time to replace your water heater.
6. Insulate exposed hot water lines.
7. Limit shower length to 5–7 minutes.
8. Install low-flow shower heads.
9. Fix dripping faucets.
10. Don't let water run while you are shaving.
11. Don't let water run while brushing your teeth.

Laundry

12. Wash clothes in cold water. Use hot water only for very dirty loads.
13. Do only full laundry loads.
14. If you must do smaller loads, adjust the water level in the washing machine to match the load size, especially when using hot water.

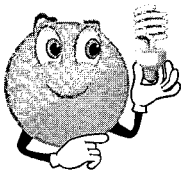


15. Always use cold-water rinse.
16. Use bath towels at least twice before washing them.
17. Clean your dryer's lint trap before each load.
18. Make sure that the outdoor dryer exhaust door closes when dryer is off.
19. Verify dryer vent hose is tightly connected to inside wall fitting.
20. Check that the dryer vent hose is tightly connected to dryer.
21. Make sure dryer vent hose is not kinked or clogged.
22. Minimize clothes drying time; use moisture sensor on dryer if available.
23. Dry consecutive loads to harvest heat remaining in dryer from last load.
24. Consider using a "solar-powered" clothes dryer, an old-fashioned clothes line.

Kitchen

25. Use your refrigerator's anti-sweat feature only if necessary.
26. Switch your refrigerator's power-saver to "ON," if available.
27. Clean refrigerator coils annually.
28. Set the refrigerator temperature to 34°– 37°F and freezer temperature to 0°– 5°F.
29. Ensure gaskets around door seal tightly.
30. Unplug unused refrigerators or freezers.
31. Use microwave for cooking when possible.
32. When cooking on the range, use pot lids to help food cook faster.
33. If you are heating water, use hot tap water instead of cold.
34. Remember to use the kitchen exhaust fan when cooking and turn it off after cooking.
35. Let hot food cool before storing it in the refrigerator.
36. Rinse dirty dishes with cold water before putting them into the dishwasher.
37. Use cold water for garbage disposal.
38. Only run dishwater when fully loaded.
39. Use air-dry cycle instead of heat-dry cycle to dry dishes.

Lighting



40. Replace any light bulb that burns more than one hour per day with its equivalent compact fluorescent bulb.
41. Turn off unnecessary lighting.
42. Replace outdoor lighting with its outdoor-rated equivalent compact fluorescent bulb.
43. Use fixtures with electronic ballasts and T-8, 32-Watt fluorescent lamps.
44. Use outdoor security lights with a photocell and/or a motion sensor.

Touchstone Energy® $avers

Visit ***www.tsesavers.coop*** *for more moneysaving tips.*

Miscellaneous

45. Turn computers and monitors off when not in use.
46. Make sure electric blankets are turned off in the morning.
47. Turn waterbed heater off when not needed.
48. Turn large-screen TV's off completely when not in use.
49. Turn off stereos and radios when not in use.
50. Remember to turn off hair curling irons and hot rollers.
51. Turn off coffee makers when not in use.
52. Turn off pool pump and/or heater when not needed.
53. Verify livestock water tank heaters are off when not needed.
54. Make sure heat tape is off when not needed.
55. Unplug battery chargers when not needed.
56. Ensure all new appliances you purchase are Energy Star-approved.

Heating & Air Conditioning

57. Set thermostats to 78°F in summer, 68°F in winter.
58. Run ceiling paddle fans on medium, blowing down in summer.
59. Run ceiling paddle fans on low, blowing up in winter.
60. Change HVAC filter(s) monthly.
61. When installing new air filter(s), make sure they are facing in the correct direction. (Look for arrow on side of filter.)
62. When heating or cooling, keep windows locked.
63. Insulate electric wall plugs and wall switches with foam pads.
64. Caulk along baseboards with a clear sealant.
65. Close fireplace dampers when not burning a fire.
66. Caulk around plumbing penetrations that come through walls beneath bathroom and kitchen sinks.
67. Caulk electrical wire penetrations at the top of the interior walls.
68. Close shades and drapes at night to keep heat in during the winter.
69. Make sure drapes and shades are open to catch free solar heat in the winter.
70. Close shades and drapes during the day to help keep heat out during summer.
71. Ensure attic access door closes tightly.
72. Insulate attic access door.
73. Make sure insulation in your attic does not block soffit vents.
74. Do not close off unused rooms that are conditioned by forced-air systems.
75. Do not close supply air registers.
76. Ensure return air grilles are not blocked by furniture or bookcases.
77. Ensure windows and doors are properly weather-stripped.
78. Make sure outside soffit vents are not blocked.
79. Do not use rooftop power ventilators for attic exhaust as they may evacuate conditioned air from your home.
80. Have your HVAC system serviced once per year by a NATE-certified technician.
81. Monitor your home's relative humidity in the summer. If it consistently stays in the 60 percent range or higher, ask your HVAC technician about lowering your central air conditioning unit's indoor fan speed.
82. Ensure window A/C units are weather-stripped.
83. Ensure windows with window mounted A/C units have weather-stripping between the middle of the top and bottom pane.
84. Remove and clean window A/C filter monthly.
85. Keep "fresh-air" vents on window A/C units closed.
86. Minimize use of electric space heaters.
87. When using the fireplace, reduce heat loss by opening damper in the bottom of the firebox (if provided) or open the nearest window slightly.
88. Caulk around basement windows.
89. In a basement, seal the sill and band joist with durable caulking or foam sealant.
90. Ensure floor registers are not blocked with rugs, drapes or furniture.
91. Ensure your outdoor heat pump / air conditioning unit is kept clean and free of debris.
92. Outside your home, caulk around all penetrations including telephone, electrical, cable, gas, water spigots, dryer vents, etc.
93. Use heavy-duty, clear sheets of plastic on the inside of windows to reduce the amount of cold air entering your home.
94. Caulk around storm windows.
95. Verify your supply air duct "boots" (behind supply air registers) are caulked to your ceiling or wall sheetrock or flooring.
96. If in unconditioned space, verify your ducts are tightly connected to your HVAC equipment.
97. Verify all outdoor doors (including storm doors) close and seal tightly.
98. In two-story homes serviced by one HVAC system, a paddle fan at the top of the stairs can push down hot, second-floor air.
99. Install 15 minute, spring-wound timers on bathroom ventilator fans.
100. Always run your HVAC system fan on "AUTO." Running it on "ON" uses more electricity and can decrease your air conditioner's ability to remove moisture.
101. Keep your garage door down. A warmer garage in the winter and cooler garage in the summer will save energy.

Sulphur Springs Valley Electric Cooperative, Inc.
A Touchstone Energy® Cooperative

Please visit our Web site at www.ssvec.org for more information and an online home audit program to help lower your energy bills.

ANZA ELECTRIC COOPERATIVE, INC.
A Touchstone Energy® Cooperative

AEPCO
Arizona Electric Power Cooperative, Inc.
A Touchstone Energy® Cooperative

DVEC

GRAHAM COUNTY ELECTRIC CO-OP
PIMA, ARIZ.

Grand Canyon State Electric Cooperative Association, Inc.
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MOHAVE
electric cooperative
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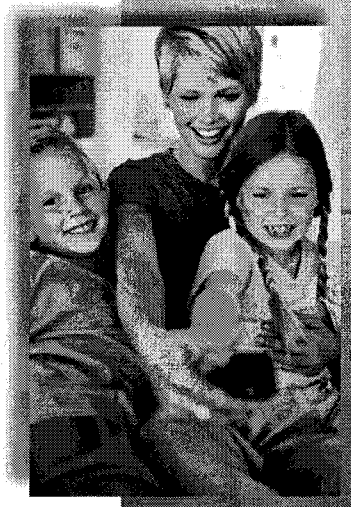
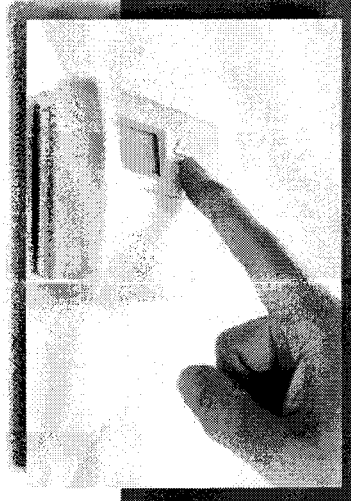
NEC
NAVOPACHE ELECTRIC COOPERATIVE

Sulphur Springs Valley Electric Cooperative, Inc.

TRICO
ELECTRIC COOPERATIVE, INC.
A Touchstone Energy® Cooperative





Energy Savings Guide

Your energy needs are unique

Members are looking for ways to control their energy use.

Inside you'll find information to help you do just that. Review the simple steps you can use to lower your energy bills. Then, if you still have questions about electrical use and costs, call the professionals at your electric cooperative. We're here to help!

Brought to you by

Touchstone Energy® Cooperatives of Arizona & California

Why is My Electric Bill Higher Than My Neighbor's?

You just answered this question yourself. It's your electric bill, and it reflects the amount of electricity consumed by *you* and *your family* in *your home* or on *your farm*.

Your neighbor may have a completely different set of circumstances...different number living at home, different lifestyle, different size home with a different style of construction, etc. Your bill may also differ from your neighbor's bill due to the varying numbers and types of major appliances as well as different heating and cooling systems.

Lifestyle Makes a Difference

You have complete control over how you use your electricity by choosing the conveniences that are necessary for you to maintain your standard of living.

The way you live and the way you use your electrical appliances may have a greater impact on your consumption of electricity than the number of appliances you use. Let's examine some of the driving factors that can make your electric bill seem higher than average.

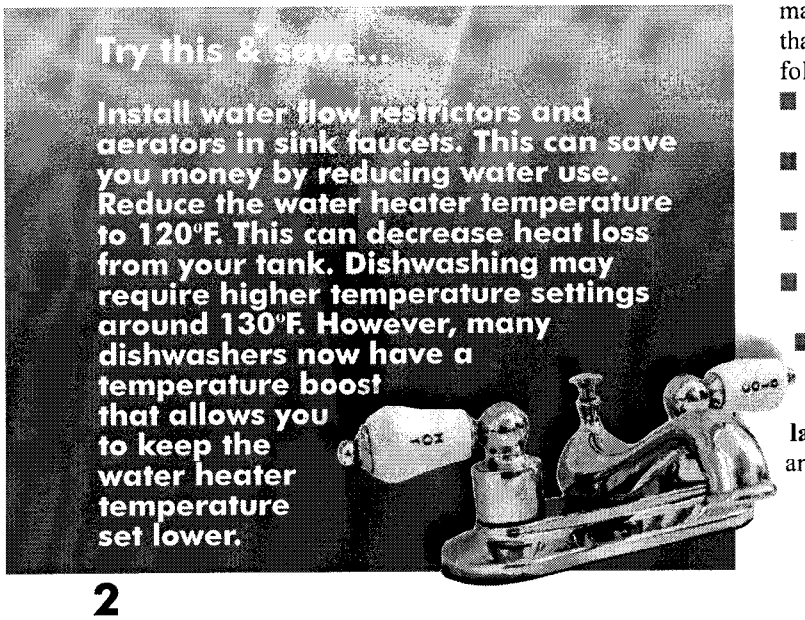
Home Energy Costs

Get a clear picture of which parts of your home use the most energy.

The first step in reducing home energy costs is to review last year's utility bills. Using the national percentage averages below, a homeowner who spent $2,500 a year for home energy would have paid roughly:

- $1,400 for heating and cooling
- $575 for appliances and lighting
- $400 for water heating
- $125 for refrigeration

Contact your local Touchstone Energy® cooperative representative to review your bills and receive a more accurate estimate.



Family Size

There is a direct relationship between the number of people living in a home and the amount of energy that is used. That's especially true if you have teenagers at home. In addition, if friends and relatives are visiting, you can expect to use more energy for cooking, baking, laundry and hot water.

Heating and Cooling

Heating and air conditioning uses the largest chunk of your home's energy dollar. Conversely, energy conservation designed to reduce heating or cooling load will have the greatest impact on your monthly energy bills. Heating and cooling expense is driven by seasonal weather extremes. An average home will experience its highest energy bills of the year during the hottest months of the summer and the coldest months of the winter. To reduce your heating and cooling expense follow these simple tips!

- To assure that your heating and cooling system is operating efficiently, have it serviced annually by a certified technician.
- Inside and outside coils should be kept clean and free of debris.
- Return filters should be changed monthly.
- Set thermostat at 78 degrees in the summer and 68 degrees in the winter. For each degree higher or lower you set the thermostat you save an additional 2% to 3% on heating or cooling costs.
- Install and utilize a programmable thermostat and save an additional 10%.
- Have a HVAC technician check carefully for duct leaks. Leaks that are found should be sealed with fiberglass mesh and mastic sealant.
- When purchasing a new system, make sure that it is sized correctly for your home and has the highest efficiency rating (SEER) that your budget can afford.

Water Heating

Hot water plays an important role in everyone's life, but many people require substantial quantities of hot water, and that results in higher energy use. Ask yourself some of the following questions...

- When I take a bath, do I use hot water sparingly, or is the tub completely full?
- Do I take short showers, or do I stay in the shower until the hot water gets cold?
- Do I repair leaky faucets, or simply let them drip and waste hot water?
- Do I operate washers and dishwashers with a full load, or just whenever convenient?
- Are my hot water pipes insulated?

It is important to note that hot water usage is the **second largest energy consumer** in the household behind heating and cooling.

Did you know...?

Tankless water heaters are ideal for applications where space is at a premium or in small vacation homes, and can serve quite effectively in point of use applications. However, their use as the central source of hot water in a residence should be carefully considered.

While tankless water heaters offer some modest energy savings over storage water heaters (possibly as little as $36/year for electric water heaters), these minimal gains are at the expense of substantially higher initial purchase costs, higher installation costs (upgraded power requirements), higher maintenance costs, and possible lifestyle changes to accommodate the limited flow rate output of tankless water heaters. For example: taking a shower while washing clothes could require as much as 6 gallons per minute of hot water. It's unlikely that any electric tankless water heater could supply the heating capacity to meet this demand.

Phantom Loads

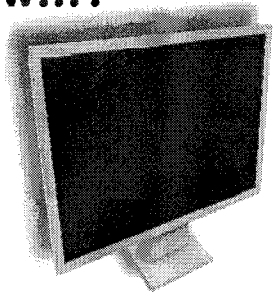
We have a host of time and labor saving appliances available to help us do our work whenever we need their service. Some of these appliances use electricity only when you turn them on.

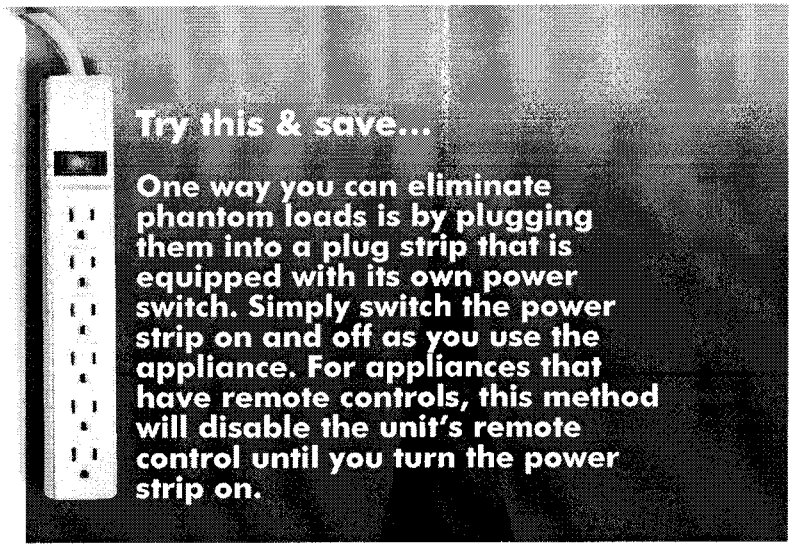
But consider this...many appliances are quietly using energy around the clock, even though you think they are turned off! The power supplies to your instant-on TVs, computers and their peripherals, cordless phones, cell phone chargers, clocks on microwaves and electric ranges, etc., are examples of "phantom loads" that steadily consume electricity whether you are using the device or not.

In addition, any appliance that has a cube-shaped transformer (sometimes called AC adaptors) on the end of its cord is also creating a phantom load. That's why these transformers feel warm even though the device is off. Another type of phantom load is the oil heater in an air-source heat pump. Even though heat pumps are an energy efficient means for heating and cooling your home, there is a steady subtle draw of electricity to heat the oil fluid in the sump of the heat pump. Phantom loads add up to a huge waste of electricity in the U.S. that costs consumers billions of dollars per year and many billions of kilowatt-hours. The total phantom load in your home could account for substantial energy use.

Did you know...?

The new big screen TVs and plasma TVs are great for watching your favorite movies or sports network. But they can use as much as 850 kilowatt-hours per year.





Appliance Use

The wise use of appliances can have a positive effect on your energy consumption.

Ask yourself these questions:

- Do I turn off lights and ceiling fans when a room is not in use, or do I leave them on?
- Does the television set entertain the entire family, or does it entertain an empty room?
- Do I leave my computer and peripherals on for extended periods of time when not in use?

These are prime considerations that affect the amount of electricity you use to maintain your lifestyle.

Make a Plan

Vacation Use

When vacation time comes and you're planning to be gone for a couple of weeks, your electric bill should decrease significantly, right? Wrong!

Many people believe that when they leave for vacation, their electric meter stops until they return. Ask yourself a few questions before assuming your electric bill should decrease by any considerable amount during vacation.

First, was your heating or cooling system turned off or the thermostat set up or down in your absence? If these preparations are not made before you leave, your heating and cooling system will work to maintain your thermostat's preset temperature even if no one is at home.

Second, was the water heater turned down or off while you were gone? If the electric water heater is left energized during vacation, it will continue to operate and maintain the tank temperature even if you're not using any hot water.

Were the refrigerator and freezers emptied and turned off? If not, they will continue to operate to maintain the preset temperatures.

Perhaps you can make arrangements with a neighbor to keep an eye on your place and adjust the heat and/or air conditioner and water heater shortly before you return. In addition, you may wish to unplug all appliances not in use. If a light is to be left on, it should be connected to a timer.

Also, many vacationers bring home several days or weeks of laundry. This will give your electric water heater and washer and dryer a workout your first day or two back home.

Seasonal Use

In addition to vacations, take a look at some of the seasonal uses for electricity that may cause an increase in consumption. These include crop dryers, air conditioners, portable heaters in the garage or basement, engine heaters that keep your vehicles ready to run, holiday lighting, heat tape to keep pipes from freezing.... the list goes on and on.

Also, don't forget about hobbies or businesses that operate out of the home.

Record

You can do something about how you and your family use energy. A big, first step is tracking current energy consumption.

Meter Reading Dates

A factor that enters into higher than normal electric bills is the number of days between meter readings. Check the number of days in your billing cycle and the average number of kilowatt-hours used per day to make accurate comparisons. Many people often overlook this important consideration.

It's important to read your meter on the same day of each month. If you notice that your usage has increased substantially from one month to the next for no apparent reason, you will be able to diagnose equipment failure sooner.

Is the Meter Accurate?

The electric meter is often accused of inaccuracy, but it's seldom the culprit. Your meter does not lie. When it records more electricity being used, try to find out why by looking at your family's activities during that period...was the weather warmer or colder than normal? Was it a washday? See what activities, if any, can be altered to use energy more wisely.

The meter is a finely calibrated, highly accurate device used to measure power use. Your electric cooperative has a continuing program to test the accuracy of all its meters to assure that you are being billed for the exact number of kilowatt-hours used. All meters are tested on a regular basis. Historical data bears out the fact that in more than 99% of the cases, the electric meter is accurate. High bills are almost always traced to other causes.

Check

Other Sources of High Usage

Sometimes you'll find equipment using electricity that you thought was turned off. It could be a faulty motor control on an air conditioner, well pump or pool pump, a leaky hot water faucet, or lights and equipment simply left on. By comparing your use with that in the Appliance Energy Use Guide on pages 6 and 7, you may determine whether that equipment is using an unusually high amount of electricity.

However, if you can't find the problem, contact your electrician or seek proper advice from your electric cooperative.

Act

Keep Records

Keep records for a few months each season. Learn how changes in your activities can affect your energy budget.

Use Less Energy

Make changes to how you use your energy. Make easy changes first. Here are some ideas to get you started.

- Set thermostats for energy economy. Make changes in temperature levels gradually so you and your family can adjust. It is estimated that 1°F temperature change can reduce heating and cooling costs by 2-3%. By installing a programmable thermostat, changes such as these require minimal effort.
- Keep heating and cooling systems working more efficiently by replacing filters monthly and having your system serviced annually.
- Turn off lights whenever possible.
- Use energy efficient lighting such as T-8 fluorescent lighting, compact fluorescent lighting and high pressure sodium lighting to cut lighting costs by up to 75%.
- Lower the temperature setting on your water heater to 120°F.
- Fix hot water faucet leaks.
- Reduce phantom loads.

Other Things to Consider

- **Swimming Pool**–The filter pump runs continuously in most cases during the summer months. The horsepower rating on the motor usually ranges from .5-1.5 and can use 360 to over 1,000 kilowatt-hours per month. Utilize a timer to reduce the pumps operational time.
- **Ceiling Fans**–Ceiling fans and portable fans can help make you feel cooler, but they don't cool the room. Use them wisely; when you are not in the room, turn them off. Conversely, most ceiling fans have a reversing switch. This can be very effective in moving warm air from the ceiling in the winter and redistributing it throughout the room.

Did you know...?

Water pumps are occasionally the cause of unexpected high energy use. Common failures that cause a pump to gobble energy include water leaks, defective pressure tanks and defective pressure switches. Water leaks and defective pressure tanks can cause your pump to start and stop more often than necessary. Defective pressure switches may cause the pump to run continually. If water for pumping continues to be available to a pump experiencing these problems, it can run for a long time before failing. When pumps are in the well (submersible) or located away from the home, the owner may be unaware there is a problem. Check your pump's run time. A water pump should run for a short time (normally less than 30 seconds) to reach its pre-selected pressure, shut off, and not run again until enough water is used to reduce pressure.

■ **Weather**–Many of the appliances/equipment we use in our lifestyles are directly tied to the weather. As the seasons change – causing the temperature to turn cooler or warmer–it usually has a direct effect on our air conditioning and heating use.

■ **Hot Tubs**–Although there is nothing more soothing than sinking into a hot tub after a long day, these energy wasters are nothing more than a huge water heater with an open face. Many times, owners don't even take the time to cover them up when not in use. Hot tubs can use $25 to $50 of energy per month or more.

■ **Closing Off Vents**–Perhaps you have unused rooms where you shut off the vent damper thinking you will save electricity by not heating or cooling that room. What you have really done is created an "unbalanced pressure" situation which will result in less efficient operation due to short cycling of the furnace or heat pump and blower. In the case of a gas furnace, this situation could introduce carbon monoxide into the home through back drafts. Rather than closing off vents, consider adjusting the thermostat temperature up in summer and down in winter.

■ **Space Heaters**–Most space heaters are 1500-watt units that are used to "warm up" a room such as a bathroom or used temporarily while you work in an unheated garage. A typical space heater used just two hours per day can account for 90 kilowatt-hours of electricity in a month's time.

■ **Replacing Major Appliances**

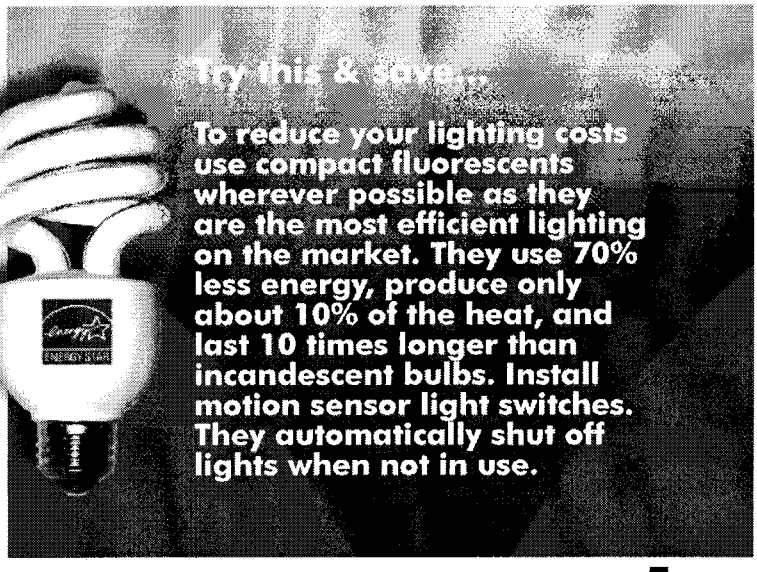
Age–Sometimes it is hard to justify replacing a major appliance for efficiency reasons until the unit dies. When replacing major appliances, look for the Energy Star label (www.eere.energy.gov).

Location–If you do replace an older major appliance that is still working, please think twice before putting that older unit somewhere else like in the garage or basement. Freezers and refrigerators are designed to be placed in 70°F-conditioned areas. Putting them outside in a garage that gets uncomfortably hot in the summer time just causes the refrigerator or freezer to run more often. In addition, these places aren't always the cleanest, so the coils collect dust, pet hair, etc., quicker than in the house, which affects their efficiency.

■ **Air Leaks**–It's been estimated that a typical home with all of its foundation and wall cracks, holes around sink plumbing and electrical outlets, gas and fireplace flues, and use of recessed can lighting in ceilings have air leakage that it is equivalent to leaving a door open year-round. Take the time to seal all of these openings with caulk or foam and apply insulated foam gaskets behind outside wall switches and receptacles. Add sufficient insulation where needed in attics and walls.

■ **Using Energy-Efficient Heating and Cooling Systems**–If you have heating and cooling units that are more than 15 years old, consider replacing them with energy-efficient units. Great strides have been made in improving the energy efficiency of heating and cooling equipment. If you use evaporative cooling systems (swamp coolers), follow the manufacturer's recommendations regarding maintenance items such as pads, water changes, etc. Do not operate them simultaneously with refrigerated air conditioning systems and remember to close windows and doors when switching to refrigerated-type systems. Also cover the evaporative coolers when not in use to eliminate air leaks through them. Talk with your electric cooperative about what is available.

■ **Shut the door**–Every time the entry doors are opened during heating and cooling seasons, unconditioned air from the outside enters the home, which has to be heated or cooled. Try to reduce these door openings to a minimum.



Appliance Energy Use Guide

To calculate cost per month, take the suggested KWh/Mo usage times your KWh cost. See step 1 on page 7 to calculate KWh cost.

KITCHEN	Avg Watts	Hours/Mo	KWh/Mo	Cost/Mo
Coffee Maker	900	50	45	
Dishwasher (including water heating cost)	1200	30	36	
Electric Skillet	1200	13	15.6	
Hot Plate	660	6	4	
Microwave	1450	15	21.8	
Range	12500	8	100	
Range-Cleaning Cycle	4500	3	13.5	
Roaster	1330	13	17.3	
Slow Cooker	200	24	4.8	
Toaster	1150	3	3.5	
Waste Disposer	450	3	1.4	

FOOD STORAGE	Avg Watts	Hours/Mo	KWh/Mo	Cost/Mo
Refrigerator *				
Manual Defrost			70-150	
Frost-Free			75-175	
Side-by-Side			120-250	
Freezer*				
Manual Defrost			70-150	
Frost-Free			85-175	

*Wattage and hours of run time for refrigerators and freezers vary widely due to age, location, frequency of maintenance, and their energy efficiency rating. A refrigerator or freezer located in a garage can use up to three times more energy.

HOME ENTERTAINMENT	Avg Watts	Hours/Mo	KWh/Mo	Cost/Mo
Televisions (8 hours per day)				
Plasma	328	240	79	
Rear-projection	208	240	50	
LCD	193	240	46	
CRT (Conventional Picture Tube TV)	146	240	35	
Personal Computer (6 hrs/day)	250	180	45	

GENERAL HOUSEHOLD	Avg Watts	Hours/Mo	KWh/Mo	Cost/Mo
Water Heater (personal use only)				
3 people-1350 gal per month	4500		374	
* Add 90 KW for each additional person				
Clothes Dryer (5 loads per week)	5000	20	100	
Clothes Washer (5 loads per week)				
Cold/Cold setting	500	20	10	
Warm/Warm setting	5000	20	70	
Vacuum Cleaner	630	6	3.8	

HEATING & COOLING	Avg Watts	Hours/Mo	KWh/Mo	Cost/Mo
Air Conditioner (central ac type, 8 hours/day)				
2 Tons (13 SEER)	1,850	240	444	
3 Tons (13 SEER)	2,770	240	665	
4 Tons (13 SEER)	3,690	240	886	
Air Conditioner (window type, 8 hours/day)				
6,000 btu/hr	800	240	192	
10,000 btu/hr	1,350	240	324	
12,000 btu/hr	1,600	240	384	
Portable Space Heater (8 hours/day)	1,500	240	360	
Air Cleaner (Ionizer)	70	720	50	
Fans: Attic			24	
Ceiling Fan (with lights)	180	720	50	
Ceiling (without lights)	60	360	43	
Window (20")			18	

PERSONAL COMFORT	Avg Watts	Hours/Mo	KWh/Mo	Cost/Mo
Water bed heater	400	300	120	
Electric Blanket	10	240	24	

LIGHTING	Avg Watts	Hours/Mo	KWh/Mo	Cost/Mo
60-watt Incandescent Bulb	60	120	7.2	
Compact Fluorescent 13-watt Bulb (60 watt equiv.)	13	120	1.6	
100-watt Incandescent Bulb	100	120	12	
Compact Fluorescent 27-watt Bulb (100 watt equiv.)	27	120	2.8	
Two 4-Foot 40-watt Fluorescent Tubes	80	120	9.6	

FARM AND MISCELLANEOUS	Avg Watts	Hours/Mo	KWh/Mo	Cost/Mo
Water Pump				
1/3 hp	333	60	20	
1.5 hp	1500	60	90	
Garage Door Opener	800	12	9.6	
Engine Block Heater (8 hrs/day)				
500-watt	500	240	120	
800-watt	1000	240	240	
1500-watt	1500	240	360	
2500-watt (diesel engine)	2500	240	600	

PHANTOM LOADS	Avg Watts	Hours/Mo	KWh/Mo	Cost/Mo
Instant on TV	28	720	20	
VCR	14	720	10	
Microwave Oven with Clock	8	720	6	
Wall Cube Power Supply (AC Adaptor)	5	720	4	
Stereo with Remote Control	8	720	6	
Stove - Electric	14	720	10	

How to Estimate Energy Use & Cost

The wattage of appliances (equipment) and the amount of operating time can vary greatly. The following information will show how to determine where the energy dollars are going in your home.

STEP 1

Look on your utility bill and find the cost per kWh that is charged in your area. If you cannot locate a bill, rate information can be found by logging onto your cooperatives Web site or by giving them a call.

STEP 2

Since the wattage of an appliance (equipment) determines the electrical usage per hour, the second step is to determine the wattage.

The wattage of an appliance is found on the serial plate. But it is possible that the electrical requirements will be expressed in volts and amperes, rather than watts. If so, multiply **volts** times **amperes** to obtain the **wattage**; e.g. 120 volts x 12.1 amperes = 1,452 watts.

EXAMPLE OF SERIAL PLATE

MICROWAVE OVEN			
AMPS	12.1	VOLTS	120
HERTZ	60	WATTS	1452
FORM NO.	000000	MODEL NO.	00000
CODE	0	SERIAL NO.	0000

STEP 3

Use the formula shown below to estimate usage and cost.

Watts (Divided By) 1000 = KW
KW x Rate $ per KWh = Operational Cost per Hour

To determine monthly cost
Operational Cost per Hour X # hours operated per day X # days in the month = $
To determine yearly cost:
Operational Cost per Hour X # hours operated per day X 365 days in a year = $

Electric Cooperatives abide by these Seven Cooperative Principles

Voluntary and Open Membership
Cooperatives are voluntary organizations, open to all persons able to use their services and willing to accept the responsibilities of membership.

Touchstone Energy® Cooperatives of Arizona & California

Democratic Member Control
Cooperatives are democratic organizations controlled by their members, who actively participate in setting policies and making decisions.

Members' Economic Participation
Members contribute equitably to, and democratically control, the capital of their cooperative.

Autonomy and Independence
Cooperatives are autonomous, self-help organizations controlled by their members.

Education, Training, and Information
Cooperatives provide education and training for their members, elected representatives, managers, and employees so they can contribute effectively to the development of their cooperatives.

Cooperation Among Cooperatives
Cooperatives serve their members most effectively and strengthen the cooperative movement by working together.

Concern for Community
While focusing on member needs, cooperatives work for the sustainable development of their communities.

More Web sites and helpful resources
www.touchstoneenergy.com - for information and to locate your local Touchstone Energy cooperative.
www.energy.gov/yourhome.htm - U.S. Department of Energy
www.energystar.gov - Energy Star Web site
www.ase.org - Alliance to Save Energy

This Informative Brochure Is Brought to You By
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Arizona Electric Power Cooperative, Inc. - Benson, AZ (520) 586-3631 www.aepco.coop
Duncan Valley Electric Cooperative, Inc. - Duncan, AZ (928) 359-2503 www.dvec.org
Graham County Electric Cooperative, Inc. - Pima, AZ (928) 485-2451
Grand Canyon State Electric Cooperative, Inc. - Phoenix, AZ (602) 286-6925 www.gcseca.coop
Mohave Electric Cooperative, Inc. - Bullhead City, AZ (928) 763-1100 www.mohaveelectric.com
Navopache Electric Cooperative, Inc. - Lakeside, AZ (928) 368-5118 www.navopache.org
Sierra Southwest Cooperative Services, Inc. - Benson, AZ (520) 586-5000 www.sierrasouthwest.coop
Sulphur Springs Valley Electric Cooperative, Inc. - Willcox, AZ (520) 384-2221 www.ssvec.org
Trico Electric Cooperative, Inc. - Marana, AZ (520) 744-2944 www.trico.coop

EXHIBIT D

Announcing Community Seminars

SSVEC's Renewable Energy and Energy Efficiency Programs

Would you like to know:

*why and how SSVEC came to offer a renewable energy rebate program?
*the current provisions of SSVEC's renewable program for members (including net-metering)?
*proper sizing of renewable energy projects?
*the potential benefits (and current limitations) of renewable energy?
*the cost of renewable energy on SSVEC's members' electric bills?
*SSVEC's residential and business energy efficiency programs?
*the status of SSVEC's Smart Grid project?

Join us for a presentation on these subjects at one of the following locations:

Willcox	**Kiva Room/Best Western Motel** 1100 W. Rex Allen Drive	**August 12, 2010**	**5:30 p.m.**
Sunsites	**Sunsites Community Center** Treasure Road	**August 16, 2010**	**2:00 p.m.**
Elfrida	**Elfrida Community Center** Route 191	**August 16, 2010**	**5:30 p.m.**
Benson	**Benson Middle School** 360 S. Patagonia Street	**August 17, 2010**	**5:30 p.m.**
Sonoita	**Elgin School** 23 Elgin Road	**August 31, 2010**	**6:00 p.m.**
Sierra Vista	**Windemere Hotel and Conference Center** 2047 S. Highway 92	**September 2, 2010**	**6:00 p.m.**

Each session is open to the public and should last about one hour.

Sulphur Springs Valley Electric Cooperative, Inc.
A Touchstone Energy® Cooperative

Sulphur Springs Valley Electric Cooperative, Inc.

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Frequently Asked Questions about SSVEC's Renewable Energy Program

These are the most common questions asked by our member-owners about the SunWatts Program and photovoltaic (PV) systems for their homes.

Q: **I heard that SSVEC is running out of incentive funds (rebates). What does that mean about my incentive?**

A: Yes, we are short of incentive funds which will delay, but not eliminate, your incentive.

Q: **How long will it take to get my incentive?**

A: The Arizona Corporation Commission (ACC) set up procedures to follow for a "waiting list." It is done on a first come, first serve basis and really depends on how many people are ahead of you on the list and the availability of funds.

Q: **How does SSVEC get the incentive funds?**

A: There is an ACC Environmental Surcharge (REST) assessed on each electric bill each month, and that money is used to fund the incentives and cover other program costs.

Q: **How is SSVEC handling this situation?**

A: As of October of 2009 we have been swamped with applications. We are working with the ACC to increase the monthly customer surcharge to speed up the funding process.

Q: **Can I reserve an incentive and put the system in later?**

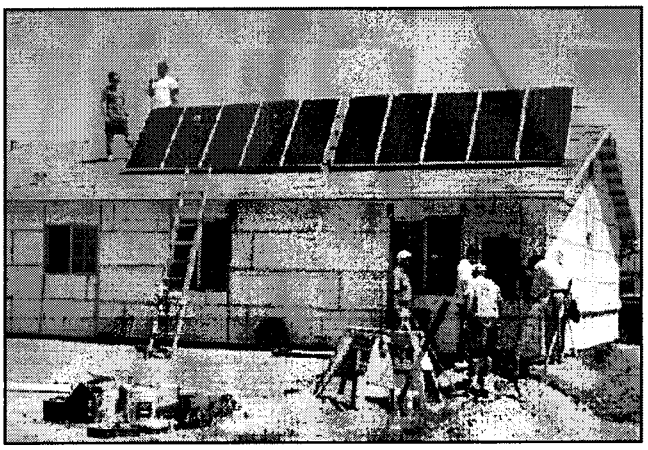
A: Yes. Fill out an Incentive Reservation Form, and we will notify you when the incentive funds for your project are available. You then have 60 days to start your project. If you choose to install your system immediately, we will mark your project as installed and when your incentive is funded, we will send you a check.

Q: **How large a system can I install?**

A: The ACC rules allow you to install a system that meets 125% of your load and still receive an incentive. Add up your annual kilowatt-hour (kWh) usage and divide it by 2190 to find your 100% sizing.

Q: **What is PBI that my installer mentioned?**

A: PBI stands for Performance Based Incentive. Instead of a one-time incentive at $3.00 a watt, you would get an incentive amount each month based on the kWh production of your system.



Q: With NET Metering now available should I put in a system larger than I need?

A: Under the NET metering regulations, you get full retail credit for the kWh you produce and use yourself. Excess kWhs (those that you can't consume over a year's time) are purchased by the Cooperative at our avoided cost (in the 5 cent per kWh neighborhood) once per year. If you size your system larger than the 125% allowed, you can't participate in NET Metering, but have to negotiate a special contract with SSVEC.

Q: What do the systems cost?

A: From what we have seen, the average installed cost of a 2 kilowatt (kW) fixed array system ranges from $16,000 to $18,000. Get multiple bids if possible.

Q: Does SSVEC sell and install systems?

A: No, we pay a $3.00 per watt Incentive (rebate) up to half the installed cost of the system.

Q: How much will a 2kW system lower my monthly electric bill?

A: You are billed for kWh used, not kW, so you have to do a little math to determine the value of a 2 kW system. A 2 kW fixed array (one that does not move to track the path of the sun) will, on average, produce the equivalent of six hours of full capacity per day. This takes into consideration that the early morning and late afternoon sun does not strike the panel as efficiently as it does at noon. A 2 kW system produces at best an average of 12 kWh per day. If the cost per kWh is $0.13 (price as of 2/1/09) your bill can be reduced up to $1.56 per day or $46.80 per month. Due to internal losses in the inverter, dirt collecting on the panels and cloudy days, most systems only produce 85% of the rated capacity (so a 2 kW system = 1.7 kW delivered). Efficiency varies by technology.

More Questions and Answers on back side

SOLAR FAQs

Q: Does SSVEC offer any other type of help?

A: The SunWatts program has a loan program to help with the cost of the system. We can loan up to half the incentive amount (with an $8,000 maximum) at 3% interest on residential systems.

Q: Can you tell me what size system to buy?

A: The sizing and design of the system is left to the solar contractors because they are the ones who have to determine what size system will fit on your home and in your budget.

Q: When the grid power goes out will my PV system keep my electricity on?

A: No, the inverter, which converts the direct current electricity from the panels to alternating current electricity that your home can use, needs to have a "reference voltage" to operate. Without utility power it turns itself off. This is also a safety feature to prevent the PV system from feeding current back into the grid and putting our line workers in danger.

Q: I thought that 2kW (2,000 watts) of energy was a lot. What does it mean in real terms?

A: Let's look at the wattage used by a few common household items.

• Hair dryer	1,800 watts
• Coffee maker	900 watts
• Vacuum	630 watts
• Water heater	4,500 watts
• 4 tons of air conditioning	3,690 watts

Let's keep in mind that you purchase kWh, not kW, and see what some common usages for various appliances are (per month):

• Refrigerator	75-175 kWh
• Freezer (frost free)	85-175 kWh
• Freezer (manual)	70-150 kWh
• Plasma TV	79 kWh
• LCD TV	46 kWh
• CRT TV	35 kWh
• Personal PC	45 kWh
• Coffee maker	45 kWh
• VCR (standby mode)	10 kWh

A 2kW PV system will produce about 10-12 kWh per day.

Q: Can I install the PV system myself?

A: For safety considerations we require that the system be installed by a licensed electrical contractor.

Q. Why can't I use batteries on the system?

A: For grid connected systems, a battery bank increases the cost and complexity of the system with no real benefit to the consumer.

Q: How do I determine what my incentive will be for a solar water heater?

A: Our solar water heater incentive is based on the efficiency of the system you purchase. The system must be tested and certified by the Solar Rating and Certification Corporation in the OG-300 guide. This will provide SSVEC with the estimated kWh savings for the first year, and we will pay $0.75 per kWh saved.

Q: Do I have to use a contractor to install a solar water heater system?

A: No. All that we require is for you to take out a permit and have the system inspected (and approved) by the local or county building inspector.

Q: What about wind-generated power?

A: Preliminary studies don't show any viable commercial grade wind in our service area. If you want to put in a wind system we do pay a Performance Based Incentive (PBI) that will pay up to $0.202 per kWh generated instead of an upfront, one-time incentive that is available for PV. See our website *www.ssvec.org* for more details.

Q: Why does green power cost more than other power?

A: Renewable energy is still not widely used and is more expensive to produce than power from traditional sources. As technology improves, use will increase and development costs will be driven down. Thus, access to renewable fuels should become more economically attractive over time.

Sulphur Springs Valley Electric Cooperative, Inc.

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More Questions and Answers on other side

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Net Metering now part of the SunWatts program

Net metering is now available for grid connected Photovoltaic (PV) systems and other grid connected renewable energy systems. This is for all renewable generation sources that are on our system regardless of when they were installed or if they received a SunWatts rebate.

How it works

SSVEC will install a meter that records both the inflow kWh (what you used) and outflow kWh (your excess from the PV or other system). If during a billing month your outflow is more than your inflow the difference will be used as a credit (at retail) for future months. Once per year there will be a "true up" or balancing of the energy bill which will be during the month of September or March. On that bill all remaining outflow kWh will be paid at our avoided cost, instead of the retail credit for future bills. If SSVEC owes you more than $100.00 you will receive the payment in the form of a check otherwise it will be shown as a credit on your September or March billing. The avoided kWh price for 2010 is $0.0491 per kWh (the avoided price is calculated each August based on the prior 12 months of power purchases).

Does it cost me anything to use NET Metering?

The SSVEC meter that has the ability to record both the inflow and outflow is more expensive than your average meter. SSVEC is allowed to collect this additional cost in a monthly fee of $2.70.

What can I expect to get in the way of a refund at the "true up" month?

That is going to depend more on the size and efficiency of your system compared with your energy consumption. To estimate your production take your system size (in kW) multiplied by 2190 and compare to your annual kWh usage.

Do I have to go on Net Metering?

No, Net Metering is optional. If you don't feel that your system produces enough energy to "send back" to SSVEC to pay for the meter charge, you can stay on the standard SunWatts meter. (This meter only records energy going into the home.)

SUN Watts

Information about the 2010 SunWatts program on reverse side

Sulphur Springs Valley Electric Cooperative, Inc.

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The 2010 SunWatts Program

In December of 2009 the ACC approved changes to the SunWatts program for 2010. The change that will affect everyone is an increase in the REST Surcharge. To meet the increased demand for renewable systems the new surcharge is $0.007937 per kWh with a limit of $3.49 per residential meter per month. Limits for Commercial and Industrial meters are higher.

Now there are two ways to get a rebate

For systems 10kW or less and/or that cost less than $75,000, SSVEC will pay a rebate at $3.00 per watt up to 50% of the system cost. (This is subject to the rebate funds being available and your position on the rebate reservation list.) Your new option is to receive a Performance Based Incentive (PBI) in which you collect funds based on how many kWh your system produces. The PBI ranges from $0.18 to $0.202 per kWh depending on the length of the PBI agreement (10-20 years). The PBI will show up as a credit on your electric bill each month. Using the PBI option you can receive up to 60% of the cost of your system from the SunWatts program.

PV over 10kW and all Wind Systems

For PV systems over 10kW or that cost more than $75,000, or for any wind system, you can no longer collect a rebate but you can receive the PBI refunds.

Net Metering

You can participate in Net Metering even if you have received or applied for a SunWatts Rebate or are getting a PBI credit. See the reverse side for the announcement that Net Metering has been approved by the ACC.

SUN Watts

Financing for a portion of the cost

The loan program remains unchanged from the 2009 program. For residential systems you may borrow up to $8,000 at $2.00 per watt up to 25% of the system cost at 3% interest.

System Sizing limits

To qualify for a SunWatts Rebate or PBI your system cannot exceed your connected load by more than 25%. Contact the Member Services Department (515-3471) for help to determine your connected load.

Assignment of Rebate

You may now assign your rebate directly to your contractor. But we will not make a payment until you give us written authorization to make the payment.

For more information on the new program, please contact one of the following: Residential customers (Sierra Vista, Hereford, Palominas, Sonoita, Patagonia) call Albert Gomez (515-3473); commercial and industrial customers (entire SSVEC service territory) call David Bane (515-3472); and residential (Benson, Willcox, Bowie, Elfrida) and all agricultural customers, call Telly Stanger at (384-5515).

You can also check SSVEC's Web site at www.ssvec.org.

Special option for those members who reserved a rebate under the 2009 program

If you have a SunWatts rebate reserved under the 2009 program we will still honor the old rebate of $4.00 per watt (up to 50% of the system cost). But there is a provision in the 2010 plan that will let you forfeit your 2009 reservation and convert your rebate to the PBI option, which will let you collect up to 60% of the system cost.

EXHIBIT E

Sulphur Springs Valley Electric Cooperative, Inc.

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For more information
contact Wayne Crane in Willcox at (520) 384-5510
or in Sierra Vista at (520) 458-4691, extension 5510

#10-006

For Immediate Release

SSVEC Offers Zero Interest Loans for Home Energy-Efficiency Upgrades

Willcox, June 25 – Sulphur Springs Valley Electric Cooperative (SSVEC) is now offering zero percent interest loans to assist cooperative members who are homeowners in making upgrades to improve the energy efficiency of their homes. Loans can be used for improving the insulation of a home, upgrading doors or windows or replacing existing heating and/or cooling systems with energy-efficient ones. The funding for this program comes from the Demand Side Management Surcharge on members' monthly electric bills approved by the Arizona Corporation Commission. Jack Blair, SSVEC's Chief Member Services Officer, says that $200,000 in loan funds is available for the remainder of 2010.

Loan amounts from $2,000 to $20,000 will be considered. The cooperative will complete credit checks (internally and externally). Loans of $10,000 or less will be made for 36 months, and loans of more than $10,000 will be made for up to 72 months.

Blair stresses that an individual must own his home in order to be eligible for the program. Work must be completed by a licensed and bonded contractor and only site-built homes are eligible; manufactured homes are not eligible.

Blair adds that funding is limited and in anticipation of a large number of members participating in the program SSVEC will maintain a reservations list.

For more information, check SSVEC's website at www.ssvec.org or call your local SSVEC office and ask for extension 3474.

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Sulphur Springs Valley Electric Cooperative, Inc.

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For more information
contact Wayne Crane in Willcox at (520) 384-5510
or in Sierra Vista at (520) 458-4691, extension 5510

#10-005

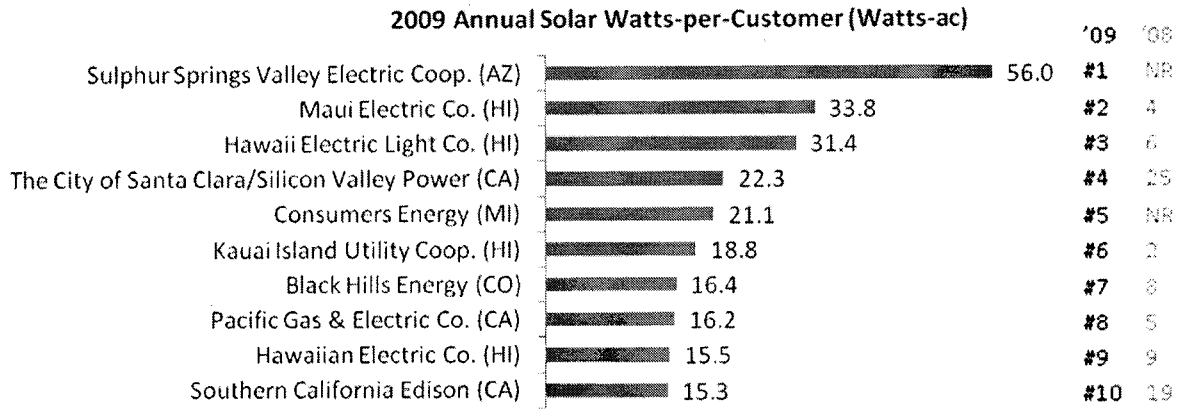
For Immediate Release

SSVEC Earns Top Honor in National Association's Annual Survey of Increased Solar Utilization

Willcox, May 19 – The Solar Electric Power Association (SEPA), an educational and research non-profit focused on helping utilities integrate solar into their operations, has recognized Sulphur Springs Valley Electric Cooperative (SSVEC) as the top utility in terms of increased utilization of solar power based on watts per customer during 2009. David Bane, Key Accounts Manager for the cooperative, accepted the award at SEPA's annual Utility Solar Conference in Denver, Colorado, on May 18.

SEPA analyzes information for the year from hundreds of electric utilities across the nation both in terms of total solar megawatts (MW) added to their systems and the number of watts per customer. The top ten utilities in each category are announced each year at the Conference.

Sulphur Springs Valley Electric Cooperative – unranked in 2008 – took the top spot in 2009 Top Ten list with 56 solar watts per customer. Consumers Energy in Michigan made the list but was unranked this past year. Also making the leap into the Top Ten this year were The City of Santa Clara/Silicon Valley Power (22.3 watts per customer) and Southern California Edison (15.3 watts per customer).



Julia Hamm, SEPA President and CEO, stated, "I'd like to personally congratulate Sulphur Springs Valley Electric Cooperative for earning a place in the 2009 Top Ten. The commitment of leaders like CEO Creden Huber is essential to the utility industry's transition to a future that includes solar power as an important part of the solution to the nation's energy issues."

SSVEC's Chief Executive Officer Creden W. Huber acknowledged appreciation for the recognition. He said, "We have worked to provide information regarding solar energy and incentives for our members to install photovoltaic systems at their homes and businesses and through our schools solar shade projects. This award confirms these efforts as the cooperative looks to renewable energy options to help meet the increasing demand for electricity here in southeast Arizona."

Jack Blair, SSVEC's Chief Member Services Officer, remarked that the member response to SSVEC's efforts to encourage the installation of photovoltaic systems has been overwhelming. He added, "The rebate incentive program has been so successful that the cooperative has implemented a reservation list which we're moving through as fast as possible."

ABOUT SSVEC

Sulphur Springs Valley Electric Cooperative is a distribution electric utility that serves approximately 50,000 members throughout southeast Arizona. Incorporated in 1938 as a rural electric cooperative, SSVEC is headquartered in Willcox, Arizona, and is regulated by the Arizona Corporation Commission. SSVEC's website is www.ssvec.org.

ABOUT SEPA

More than 700 utilities and solar industry members comprise the Solar Electric Power Association (SEPA). From national events to one-on-one counseling, SEPA is the go-to resource for unbiased and actionable solar intelligence. Breaking down information overload into business reality, SEPA takes the time and risk out of implementing solar business plans and helps turn new technologies into new opportunities. For more information, visit www.solarelectricpower.org.

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Sulphur Springs Valley Electric Cooperative, Inc.
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For more information
contact Jack Blair
at (520) 515-3470

#10-001

For Immediate Release

SSVEC Eager to Begin Sonoita Line Project

Sierra Vista, January 14—Sulphur Springs Valley Electric Cooperative (SSVEC) has asked the Arizona Corporation Commission (ACC) to let it begin construction of a new 69-kV transmission power line to serve the Elgin, Sonoita, and Patagonia areas.

The cooperative's request comes on the heels of an independent third party study which confirmed that SSVEC's proposal for that line is the most cost effective method to solve reliability and power quality problems that have long plagued the area.

Presently only one high voltage feeder line serves 2,400 consumers in Elgin, Sonoita, and Patagonia areas. That line is 360 miles long and has become overloaded due to growth, leading to hundreds of hours of outages annually, along with power quality problems that could damage motors and electronic equipment belonging to consumers.

The study, which was ordered by the ACC and paid for by SSVEC customers at a cost of $360,000, said that SSVEC "should take immediate action" to address those problems and called the line proposed by SSVEC "the preferred alternative."

The study examined 20 different alternatives, including other routes for the new line or reducing the need for a new line by increasing energy efficiency, developing renewables like wind or solar energy, or using fossil fuel generators.

The study found that many of those solutions simply are not workable with today's technology or would provide only partial or short-term solutions at great expense.

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The study was performed by Navigant Consulting of Massachusetts, one of the nation's leading electric utility engineering firms.

"We are pleased that the study reaffirmed the work of our own excellent engineering staff," said Creden Huber, CEO of the cooperative. "It also affirms what the ACC's own engineering staff concluded. The ACC ordered us to do the study. We cooperated fully with the independent firm that conducted the study. The results are unambiguous. There is a problem and this is the best way to solve it. Further delay or make-shift solutions could wind up wasting millions of ratepayer dollars. It is time to move forward."

Huber added that the study found that the selected route affects the landscape views of fewer people than would alternative routes. It was that issue which prompted some local opposition to the line, despite the cooperative's having owned rights of way for the line for 28 years. "That right-of-way is a matter of public record that was available to everyone who purchased property along that route since 1982," said Huber.

SSVEC has posted the entire study on its Web site, www.ssvec.org and so has the ACC.

"If we can't get this line built, a permanent moratorium on new meters in that area will become a fact of life," said Huber. "We hate that as much as anyone because we're in business to sell electricity."

SSVEC hopes that the ACC will act on the motion quickly.

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Sulphur Springs Valley Electric Cooperative, Inc.
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For more information
contact Jack Blair in Sierra Vista
at (520) 515-3470

#09-011

For Immediate Release

SSVEC and Two Other Co-ops Receive Federal Grant to Improve Electrical Grid

Sierra Vista, October 27— On October 27, 2009, Sulphur Springs Valley Electric Cooperative (SSVEC) received notice from Patricia A. Hoffman, Acting Assistant Secretary Office of Electricity Delivery and Energy Reliability in the Federal Department of Energy, that the SSVEC Smart Grid Investment Grant was approved.

This grant was part of a larger grant submitted by three Arizona Cooperatives, SSVEC, Southwest Transmission Cooperative (SWTC) and Mohave Electric Cooperative (MEC) that totals $32,244,485. Of that money, $15,567,349 or 48 percent will be used to improve the SSVEC electrical grid.

This grant will enable SSVEC to modernize its electrical distribution system sooner than planned which will provide numerous benefits to SSVEC and its members to include:

- Improved system reliability which translates to fewer, less widespread, and shorter electrical outages.
- A savings to SSVEC members of more than $15 million which SSVEC will not have to collect in the future to pay for the modernization of the line.
- The ability for SSVEC to implement much more robust time-of-use rates for residential and business members in the future. In the future, SSVEC will be able to send a signal to its members during peak electric consumption times to reduce usage. This will save the individual members money as well as the entire membership as SSVEC will not have to purchase very expensive electricity during the peak demand times.

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"This is great news for SSVEC and its members," said Ron Orozco, SSVEC Manager of Engineering and the driving force behind SSVEC obtaining this grant. "This project will allow SSVEC to more quickly move our system to the new Smart Grid technology which will increase our reliability and save all of our members a large amount of money in not having to pay for these upgrades as well as future energy savings. It's a true win-win for both SSVEC and our members".

Jack Blair, SSVEC Chief Member Services Officer stated, "This is great news for all of our members and there are lots of cost advantages, both long and short term in this project." Mr. Blair added, "This grant should also add impetus to building our new 69 kilovolt (kV) line to Sonoita as the current line is not robust enough to handle the increase in equipment required." It would be a shame if the small vocal minority of members, to whom this is nothing more than a viewshed issue, kept all of the members in the Sonoita, Elgin, and Patagonia area from sharing in the ability to reduce their electric consumption."

There will be a briefing for all electric utilities on November 16, 2009, to discuss the methods for going forward on the approved projects.

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Sulphur Springs Valley Electric Cooperative, Inc.
A Touchstone Energy® Cooperative

For more information
contact Jack Blair in Sierra Vista at (520) 515-3470

#09-008

For Immediate Release

SSVEC Considering Building Solar Facility in Sonoita Area

Sierra Vista, July 10—Sulphur Springs Valley Electric Cooperative (SSVEC) has issued Request for Proposals (RFP's) to build a solar photovoltaic energy facility with a capacity of approximately 750 kilowatts (kW) to be located at its new substation site in Sonoita.

SSVEC Chief Member Services Officer Jack Blair stated, "This facility will be particularly beneficial in summer months during the cooperative's peak demand period when SSVEC must buy more expensive power on the open market." He added that the output from this facility during its mid-day hours of operation would be equal to the amount of electricity used by approximately 190 homes.

Blair explained that this site was chosen for several reasons. "One of the keys for maximum efficiency of a large scale solar project is that it be located close to an electric substation and possess the necessary electrical infrastructure to handle the renewable power generated," he said. "The new Sonoita Substation was designed to accommodate large scale solar projects."

Blair added, "There is sufficient land on the substation property to construct a facility to generate approximately 750 kW of solar power. With the construction of the new 69 kV line, there is sufficient electrical infrastructure to handle this amount of renewable energy. And with the construction of the new line and substation, it will be more cost-efficient to include the renewable energy component as part of the project instead of adding it later."

Once SSVEC receives the RFP, the cooperative will determine the cost-efficient methods to finance and build this project.

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"There are a lot of funding methods and opportunities under the current stimulus package", said Blair, "and we are looking a variety of these. Some of these include the Clean Renewable Energy Bonds (CREBs), which is how we financed our 41 school solar shade structures, as well as monies under Section 1603 of the American Recovery and Investment Act which provides cash funding for 10 to 30 percent of the cost of renewable energy programs.

"In addition, we are looking at proposals where a third party would build, operate and maintain the structure for a specified period of time, and SSVEC would agree to purchase the output at a specified amount for that time frame. We also plan to use the RFP's that we receive in conjunction with other funding and partnering opportunities as they come along." Blair said.

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EXHIBIT F

2009 Annual Report

Sulphur Springs Valley Electric Cooperative, Inc.

A Touchstone Energy® Cooperative

Above: Clint Wilharm (right) reviews plans for the Vacation Village RV Park in Benson with Greg Davis of Alpha Electric.

Technology continues to improve most aspects of our daily lives. Delivering electricity to homes and businesses is one such example.

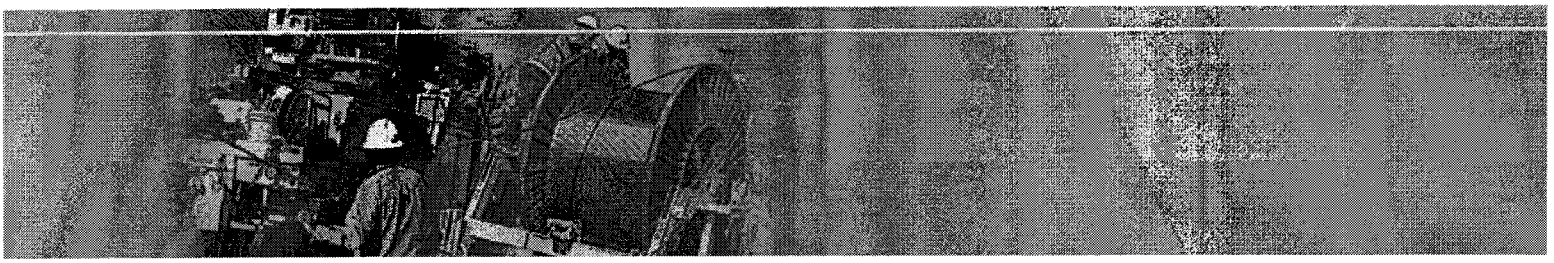
Technological advances are vital for your electric cooperative in the equipment that delivers electric power, the tools and apparatus used by linemen and engineers in doing their jobs, the metering technology to monitor, capture and display information, and the computer systems to track warehouse inventory, equipment and poles in the field and payment of monthly bills. In addition, SSVEC uses communications technologies to transmit data and communicate within the organization and between the cooperative and its members. In short, technology plays a role in nearly every area of cooperative operations.

By utilizing these various technologies, SSVEC improves the efficiency and economy of its operations and offers greater convenience and service to cooperative members.

OPERATING HIGHLIGHTS

	December 31, 2009	December 31, 2008
Total electric services in place	52,887	51,849
New services connected	391	458
Total electric energy sales (kWh)	834,119,415	819,071,877
System peak, (kW) and month	201,528 (August)	191,622 (June)
Miles of line		
Transmission	286	286
Distribution (overhead)	3,019	3,008
Distribution (underground)	734	718
Taxes paid for the year (property, payroll, franchise and other)	$12,682,796	$11,842,429
Patronage Capital		
Margins assigned	$5,886,441	$11,245,897
Retired	$257,479	$268,878

Cover: Engineering Field Technician Clint Wilharm uses the latest technologies in his daily work: a tablet computer and Global Positioning System (GPS) for pinpointing locations for the specific work order and the co-op's mapping system, and a "total station" surveying instrument for precise angle and distance measurement.



PRESIDENT'S REPORT

A HISTORY OF IMPROVING SERVICE THROUGH TECHNOLOGY

Dan Barrera
President, SSVEC
Board of Directors

During the formative years of SSVEC back in the late 1930's the majority of communication between the cooperative's founders and the Rural Electrification Administration in Washington, D.C., took place through the U.S. mail. Only matters that were of utmost importance and time-sensitive warranted a telegram, the state-of-the-art rapid communications for that time.

Today, communication on most levels can be instantaneous. From e-mails for regular correspondence and scanned materials to reference information on Web sites (often with video files), SSVEC has come a long way.

When you look at the 72 year history of SSVEC the same leaps in technology can be seen in many areas First, tools and equipment used by SSVEC's linemen in the field have gone from climbing hooks, shovels and drawn-by-hand work orders to sophisticated bucket trucks, high-powered augers and laptop computers. Line equipment has moved from a simple fuse that once operated had to be replaced to automatic circuit reclosures, more complex switching equipment, and remotely controlled substation devices. And the metering equipment has improved from a simple device that was read once a month and recorded all usage to new systems which can record minute-by-minute usage at the site and report the data via fiber optics and phone lines to a central location.

Over the past decade, SSVEC has taken advantage of other technological advances to improve operations and save the cooperative money: automated meter reading, cable injection to prolong the useful life of underground electric cables in conduit, and remote switching at substation sites.

New technologies are reviewed by management and staff, studied to determine the usefulness to SSVEC and often begin with a pilot program to gauge their effectiveness. It is your board of directors who approve the financing to adopt these measures and who monitor their installation and effectiveness.

These technologies are tools to help SSVEC meet its main mission: to provide members reliable electric service at the lowest possible price given wise business practices.

BOARD OF DIRECTORS

SSVEC's board of directors is composed of 13 cooperative members who are elected by members in their districts for three-year terms. The board is responsible for setting policy and assuring the financial integrity of the cooperative.

As part of the on-going training programs offered by the state and national cooperative associations, directors attend classes on subjects such as financial basics of the cooperative, legal mandates, trends in the utility business, and new and emerging technologies.

Cooperative directors also regularly lobby state legislators and members of Congress on issues affecting the electric utility industry and electric cooperatives.

EXECUTIVE COMMITTEE

Secretary Charles Brown (Pearce-Sunsites, Cochise, Dragoon and Kansas Settlement), President Dan Barrera (Benson), Vice President Ron Kline (Sierra Vista), and Treasurer Pat English (Double Adobe, McNeal, Elfrida and San Bernardino).

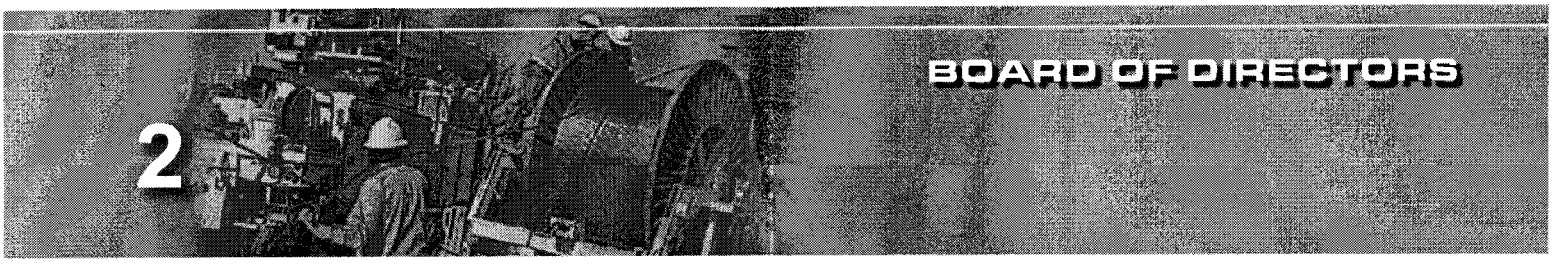
The Executive Committee, chaired by the Board President, is composed of the four officers of SSVEC. It acts for the Board in matters delegated to it by the full Board and when it is not feasible to convene the entire Board. This Committee periodically reviews SSVEC's general insurance program and makes necessary recommendations to the Board.

The Finance and Audit Committee, chaired by the Board Treasurer, assists and advises the Board on all questions of finance and audit issues. The Committee regularly reviews key indicators that measure SSVEC's financial position. This Committee assists and advises the Board on purchases and rate issues. It reviews the preliminary budget for the ensuing year and recommends appropriate action to the Board.

FINANCE AND AUDIT COMMITTEE

Seated—Don Kyte (Sierra Vista), Kathy Thatcher (Willcox, Bowie and San Simon), Curtis Nolan (Stewart District) and Pat English (Double Adobe, McNeal, Elfrida and San Bernardino).

The Policy Committee is chaired by the Vice President and assists, advises and make recommendations to the Board on cooperative policy.



The Committee reviews an appropriate number of policies each month to allow for a review of each policy at least once every three years. This Committee also acts on individual policies as needed.

The Employee and Customer Relations Committee is chaired by the Board Secretary. The Committee assists, advises and makes recommendations to the Board on personnel matters concerning compensation and benefits. This Committee also assists and advises the Board on customer relations, the annual meeting, and environmental issues and then recommends appropriate action to the Board. In addition, the Committee assists and advises the Board on issues involving the SSVEC Foundation and the SSVEC Charitable Trust.

POLICY COMMITTEE

Joe Furno (Elgin, Sonoita and Patagonia), Gene Manring (Sierra Vista and Hereford), Ron Kline (Sierra Vista), and Andrew B. Mayberry (St. David and Huachuca City).

SSVEC Directors tour the solar shade structure at Buena High School.

EMPLOYEE & CUSTOMER RELATIONS COMMITTEE

Seated, David Luna (Sierra Vista), Charles Brown (Pearce-Sunsites, Cochise, Dragoon and Kansas Settlement), Cecil Carlile (Sierra Vista), and Harold Hinkley (Sierra Vista).

Ron Orozco, engineering manager, explains to Directors the basics of the inverter and the tie-in with the photo-voltaic panels on the solar shade.

CHIEF EXECUTIVE OFFICER'S REPORT

Creden W. Huber is Chief Executive Officer of SSVEC. He represents the cooperative on the board of Sierra Southwest Cooperative Services. He also serves as director on the boards of Grand Canyon State Electric Cooperative Association and of Federated Insurance.

The tools of technology increase the efficiency of operations.

THE YEAR 2009

Moving Forward with Technologies

One definition of technology is the use of a specialized tool to accomplish more with fewer resources or in less time.

From the beginning of SSVEC's history it was obvious that electricity would be called upon to do more at the homes, farms, ranches and businesses that it served. The fact that there was a greater demand for electricity and improved reliability meant that the technology of delivering power to each member would be required to improve. This then meant that co-op employees in the field and in the office would need to be more productive in handling greater workloads. And so some common technologies such as phone, fax and personal computer were utilized. And specialized technologies, unique to the field of utilities, were also adopted.

This past year has seen a number of projects at your cooperative move to a new level of technology and do more with less. And though many of the programs require a substantial up-front investment, the payoff can be seen in improved reliability, cost savings and customer convenience.

One of the newer technologies that has great potential is the "smart grid." In October of 2009, we received notification from Federal Department of Energy that the SSVEC Smart Grid Investment Grant was approved.

This grant, that totals $32,244,485 was part of a larger grant submitted by three Arizona Cooperatives: SSVEC, Southwest Transmission Cooperative and Mohave Electric Cooperative. Of that money, $15,567,349 or 48 percent will be used to improve the SSVEC electrical grid.

This grant will enable SSVEC to modernize its electrical distribution system sooner than planned which will provide numerous benefits to SSVEC and its members to include:

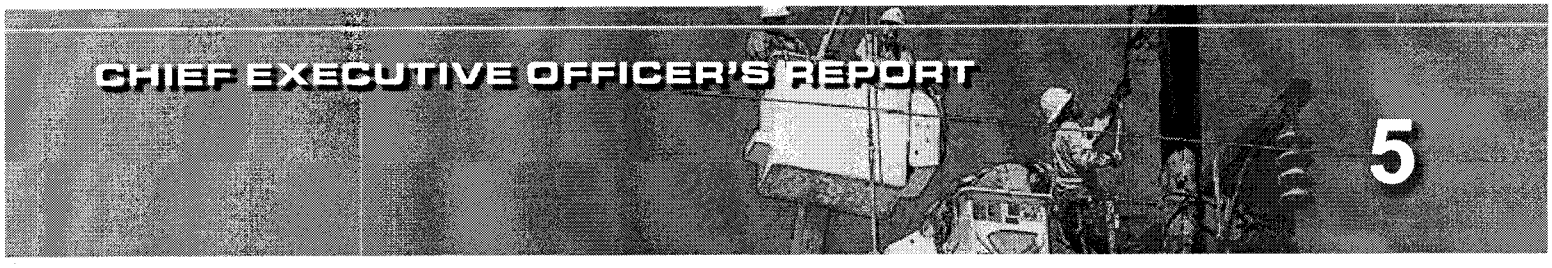
- Improved system reliability which translates to fewer, less widespread, and shorter electrical outages.
- A savings to SSVEC members of more than $15 million which SSVEC will not have to collect in the future to pay for the modernization of the line.
- The ability for SSVEC to implement much more robust time-of-use rates for residential and business members in the future. In the future, SSVEC will be able to send a signal to its members during peak electric consumption times to reduce usage. This will save money for individual members as well as the entire membership because SSVEC will not have to purchase very expensive electricity during the peak demand times.

As with any technology, its application is only as good as the people who work with it. Your cooperative employees are to be commended for their professionalism in following the latest developments in the electric utility industry, in completing the training necessary to make new devices and systems actually work at the cooperative, and in identifying those areas that may need to be modified to effectively work in our particular situations.

A basic lesson in management distinguishes between effectiveness and efficiency. It defines effectiveness as doing the right things and efficiency as doing things right.

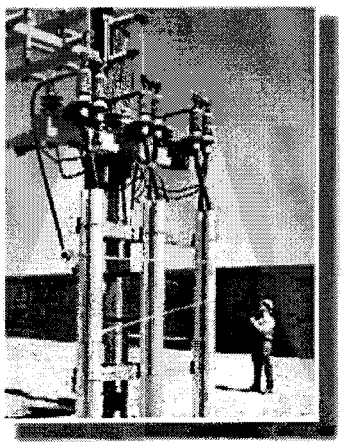
SSVEC's Board and Management determine the direction of your cooperative and making the interests of all members SSVEC's primary focus; that is, they assure that your cooperative is doing the right things.

The tools of technology put into the hands of employees increase the efficiency of operations and enable them to do things right.



GREAT SERVICE THROUGH TECHNOLOGY

Flipping a switch at your home, ranch, or business is a fairly simple operation. The technology necessary to allow that switch to work effortlessly and reliably is another matter. Today cooperative members have an expectation that they can have all the electricity they need whenever they need it. It is meeting that expectation that drives SSVEC to continually improve the components of its distribution system and the auxiliary and support systems.



Working with advances in computer technologies and the cooperative's information technology system, SSVEC offers greater convenience to our customers through electronic bill payment and paperless billing. Communications with members have taken a giant leap through the use of a Web site. Computer modeling through software programs helps member services personnel provide reliable estimates of energy usage and savings based on home improvements such as high efficiency electric heat pumps, addition of insulation or replacement of existing windows and doors with those more energy efficient. In addition, automatic meter reading devices can report detailed usage at a residence, enabling energy specialists to pinpoint possible solutions to high bill complaints

Doug Miller, apprentice substation/SCADA technician, uses an infrared camera to identify "hot spots" in a cooperative substation showing temperatures of individual structures. The infrared device is also used on line voltage regulators.

Old-timers remember the good old days. Those were times when life was slower, work was harder and conveniences were fewer. Advances in technologies have improved our lives.

Today as we look to "smart grid" technology your cooperative is about to take a major step in technology, one that can have profound effects in how members use and pay for electricity.

The Smart Grid

What is the "Smart Grid"? There is not one standard answer to that question. Everyone in the industry has a different answer. A simple answer is the Smart Grid uses technology to make the electric transmission and

Improvements in design and operations of utility bucket trucks allow linemen to maneuver at heights for work in distribution substations and to complete distribution line work while power lines are energized.

distribution system work better for your cooperative and for you. So how is that accomplished? Several characteristics describe the Smart Grid.

- Intelligent – capable of sensing system overloads and rerouting power to prevent or minimize a potential outage; of working autonomously when conditions require resolution faster than humans can respond, and cooperatively in aligning the goals of utilities, consumers and regulators.
- Efficient – capable of meeting increased consumer demand without adding infrastructure. Accommodating – accepting energy from virtually any fuel source including solar and wind as easily and transparently as coal and natural gas; capable of integrating any and all better ideas and technologies – energy storage technologies, for example – as they are market-proven and ready to come online.

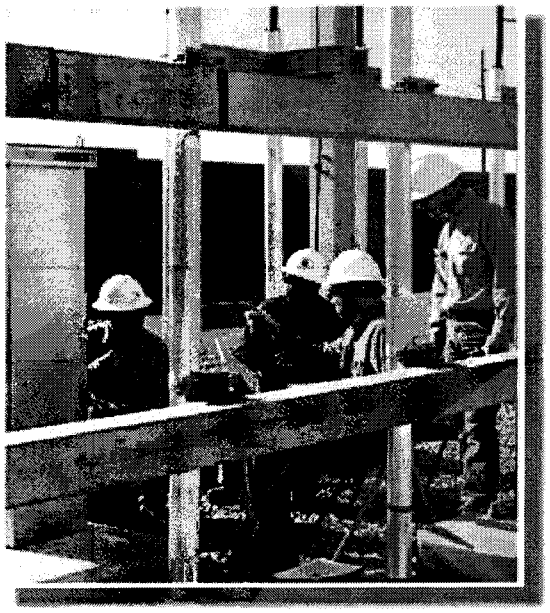
Equipment, computer systems and software - all the technologies that your cooperative uses - are the tools that enable employees to do their jobs better.

Anselmo Torres, Jr., Chief Operations and Engineering Officer of SSVEC

- Motivating – enabling real-time communication between the consumer and utility so consumers can tailor their energy consumption based on individual preferences, like price and/or environmental concerns.
- Quality-focused – capable of delivering the power quality necessary – free of sags, spikes, disturbances and interruptions – to power our increasingly digital economy and the data centers, computers and electronics necessary to make it run.
- Resilient – increasingly resistant to attack and natural disasters as it becomes more decentralized and reinforced with Smart Grid security protocols.

The Department of Energy (DOE) lists five fundamental technologies that they believe will drive the Smart Grid:

- Integrated communications, connecting components to open architecture for real-time information and control, allowing every part of the grid to both 'talk' and 'listen.'
- Sensing and measurement technologies, to support faster and more accurate response such as remote monitoring, time-of-use pricing and demand-side management.
- Advanced components, to apply the latest research in superconductivity, storage, power electronics and diagnostics.
- Advanced control methods, to monitor essential components, enabling rapid diagnosis and precise solutions appropriate to any event.
- Improved interfaces and decision support, to amplify human decision-making, transforming grid operators and managers quite literally into visionaries when it comes to seeing into their systems.



Several cooperative employees were involved in the commissioning of fiber optics at the Hawes Substation in Sierra Vista in July of 2009. Shown here are (from left) Brooks Clifton, electric/electronic meter technician; John Peebles, application support technician; Thomas Riggs, information technology manager; and Brian Church, automatic meter reader technician.

Our Smart Grid work plan includes the following jobs that must be completed within three years:

- Install 136 miles of fiber optic cable (on our existing 69 kV system and planned additions).
- Install 19,150 smart meters - 16,400 residential, 2,000 commercial, 750 other services.
- Install a Demand Side Management System.
- Install 2,500 Home Energy Displays (HED's).
- Upgrade 10 line switches.
- Install 15 sectionalizing devices.
- Install 10 voltages regulators.
- Upgrade our Supervisory Control and Data Acquisition (SCADA) master station and install new SCADA.
- Upgrade Stewart and Tombstone switching stations.
- Upgrade seven transmission switching points.

Below: A technician prepares to splice a hair-thin strand of optical fiber.

Rusty Evans, work order coordinator and inspector and project manager for fiber optics installation (on left), oversees the trenching at the Sierra Vista Construction facility.

One of the goals of your cooperative is to assure all the data from these technologies are interconnected so the various departments can use the information efficiently.

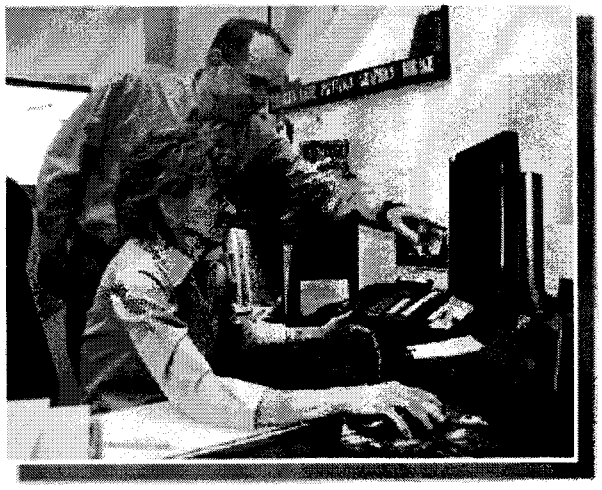
Kirby Chapman, Chief Financial and Administrative Officer of SSVEC

iVUE

One major objective for SSVEC in 2009 was to upgrade our most important computer system developed and provided by National Information Solutions Cooperative. This system, commonly called "iVUE," provides numerous cross functional abilities integrated within two main modules. The first module includes functions for accounting, human resources, payroll, asset management, work orders, purchase orders, material inventory, and fleet management. The second module includes functions for customer service, billing, collections, meter inventory, and other equipment inventory. Simply put, iVUE helps employees manage the entire business and in turn, provides several benefits for members.

Although many of the new features found in iVUE have internal benefits, there are benefits for our members as well. The computer system is installed using the latest techniques in information technologies. This ensures that the system is available during business hours thus providing access to member information for our customer service representatives accurately and timely for high-quality customer service. These technologies also make certain that member information is secured and protected to help thwart possible identity theft.

Other benefits are provided by the ability for iVUE to more easily integrate with other systems. For instance, customer service representatives are able to review bills and historical usage offering a more efficient experience for the member. Finally, due to this integration, SSVEC is now able to offer two new features that have been requested by members. Members may now opt out of receiving a paper copy of their bill in the mail by choosing "paperless billing." Members will also have more control of how they want to pay their bill by using automatic recurring methods. These features may be accessed from SSVEC's Web site www.ssvec.org by clicking on the "Pay/ View Your Bill Online" option on the left side and following the instructions on the site to sign up.



Thomas Riggs, information technology manager, and Lainie Keltner, customer services manager, review data for the paperless billing option now offered to SSVEC members.

Renewable Energy Standard and Tariff (REST)

The Renewable Energy Standard and Tariff (REST) program is required by the Arizona Corporation Commission (ACC) to promote the use of renewable energy by all electric utilities. The SSVEC REST program for 2010 has some changes that reflect the overwhelming level of participation at the end of 2009.

The REST surcharge was increased on a per kWh basis and the maximum per account was adjusted to increase the REST budget to meet the demands on the program. The incentive level was lowered to $3.00 per watt beginning in 2010 to follow the lowering of the retail cost of PV systems. The 2010 program also added new options in the form of Performance Based Incentive (PBI) that provides an incentive over time, based on the production of renewable kilowatt-hours. PBI is the only option for PV systems over 10 kW and for any wind powered systems.

Daniel Castro (left) and Steven Hyde, electricians for Castro Electric in Sierra Vista, align photovoltaic panels on one of the company's warehouses. Castro Electric was the first commercial company to participate in SSVEC's SunWatts program.

Due to the high volume of requests for incentives in the last three months of 2009, SSVEC activated the reservations process as outlined by the ACC to pay incentives to customers in a fair consistent manner. Customers who reserved incentives under the 2009 program will receive the 2009 incentive amount as funds become available.

Demand Side Management

Demand Side Management (DSM) is a program designed to help lower the consumer's cost of energy and also lower SSVEC's cost to purchase energy at peak use times. SSVEC's DSM program is funded by a surcharge on kilowatt-hour usage.

Touchstone Energy Efficient Home Program is designed to help consumers and builders lower their overall energy consumption through the use of good building practices, higher than minimum insulation levels, good infiltration control, high efficiency heating and cooling equipment, and sealed ductwork. This program has been in place for over 18 years and the standards are continually upgraded to keep lowering energy costs in new homes.

The Heat Pump Rebate and Water Heater Rebate programs are also part of the DSM program that helps consumers install more efficient equipment. SSVEC recognized that a more efficient unit costs more initially and the rebate is to help offset some of that cost. The more efficient units lower the amount of expensive energy that SSVEC has to purchase and lowers members' monthly bills as well.

Home and Business Energy Audits are also provided to consumers at no charge. Energy Management Specialists look for energy "leaks" and can suggest ways to make simple

improvements that save energy. They also can answer questions on the best ways to make homes and business more energy efficient.

Beginning in 2010 we have two new programs to help consumers lower their energy costs and help lower SSVEC's cost of purchased power. We are happy to announce the zero interest loan programs for both residential and small businesses.

The technologies used by SSVEC allow us to help members better understand their energy usage and modify it, to better communicate with our members and to provide services in addition to electricity.

Jack Blair, Chief Member Services Officer of SSVEC

Both programs have limits on the size of the loan, and are restricted for use only on measurable energy saving upgrades. The residential program is designed to upgrade the older homes we serve that need basic improvements to insulation, doors, windows, and infiltration. The commercial program is designed to allow businesses to make the improvements that provide a quick cost recovery such as lighting upgrades and equipment upgrades.

Net Metering

In 2008/2009 the ACC developed the NET Metering rules for all electric utilities to follow that went into effect in first half of 2009. SSVEC filed its NET Metering tariff in September of 2009 and it was approved by the ACC in early 2010.

What is NET Metering? If you have a generation source (photovoltaic panels, wind, biomass, etc.) that can create electricity, Net Metering allows you to use the SSVEC grid as a "storage battery" and your excess production is saved for future use. Under the ACC Net Metering rules, the consumer gets retail credit for excess production for 11 months of the year. One month per year the utility and the consumer "true up," and the consumer is paid (at the utility's avoided energy cost) for any excess kilowatt-hours that are "stored" on the grid. For the consumer with a small system, this means he gets full value for every kilowatt-hour he produces, and he doesn't have to use the kilowatt-hour at the moment he produces it. For the consumer who invested in a large system to become a NET Zero customer, that is a customer who plans to provide for all his own electricity for the year, Net Metering is what makes it economical and avoids the cost and maintenance of battery systems. Net Metered customers require a special meter to record the flow of energy in both directions and pay a nominal Net Meter charge of $2.70 per month to cover the extra cost of the meter.

Wireless Internet Service for Members

Since 2005, SSVEC has partnered with TransWorld Network (TWN) to provide members Wi-Power High-Speed Internet service. More than 3,000 SSVEC members and an additional 4,000 consumers in Arizona and New Mexico have chosen Wi-Power as their Internet provider.

In 2009, TWN added Wi-Power Digital Phone Service to their product offerings. Wi-Power Digital Phone allows customers to make and receive local and long distance telephone calls using their high-speed Internet connection. Bundled phone and Internet plans start at just $60 per month. Wi-Power Internet and Phone are reliable, affordable and trusted by several critical community organizations such as the U.S. Border Patrol, USDA, Fry Fire Department, Pearce Elementary School, St. David Unified School, Benson Unified Schools and Cochise Eye and Laser Clinic. For more information about Wi-Power for your home or business, please call 1-866-297-8906.

SSVEC Foundation

In 1984 SSVEC members approved a change in the cooperative's bylaws to establish the Sulphur Springs Valley Electric Cooperative Foundation. The Foundation is a tax-exempt, charitable corporation. Its purpose is to support SSVEC's ongoing youth programs: the Washington Youth tour, the Youth Engineering and Science Fair and the SSVEC Foundation Scholarships.

In addition, as funds permit the Foundation annually reviews applications from community and youth organizations for one-time grant contributions.

The Foundation is funded through unclaimed patronage capital credits from cooperative members. As a cooperative, margins (profits) are assigned each year to members based on their electricity usage. SSVEC retires (returns) these margins to its members as the financial health of the cooperative permits. If SSVEC is unable to locate individuals, their money is transferred to the Foundation. Prior to the establishment of the Foundation, such money was forfeited to the state of Arizona. Voluntary contributions to the Foundation are also accepted.

Board President Curtis Nolan presents one of the 2009 SSVEC Foundation Scholarships to Nick Davis of Benson at the Cooperative's 2009 annual meeting

Bonita students Yasmin Boone (left) and Yulissa Aguirre are the first place team project winners in the biological science category for the 5-6 division of the 2010 Youth Engineering and Science Fair.

SSVEC Charitable Trust

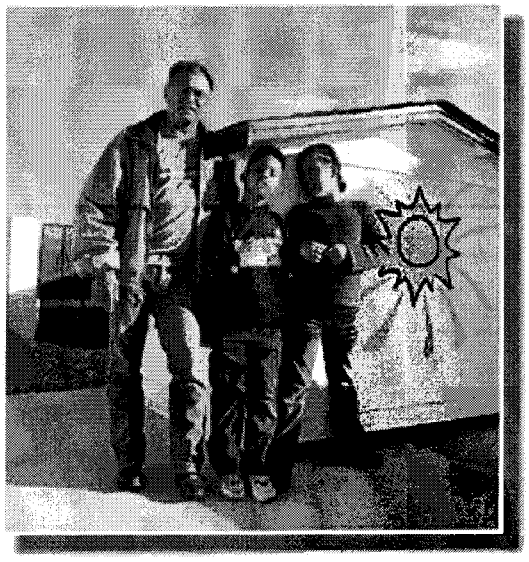
In 2000 the SSVEC Board of Directors established the SSVEC Charitable Trust. Its purpose is to improve the quality of life for less fortunate neighbors served by the cooperative who experience emergencies, illnesses and special needs.

The Charitable Trust is funded by the Operation Round Up program in which cooperative members agree to having their monthly electric bills "rounded up" to the next dollar. The additional cents contributed each month accumulate and allow SSVEC to assist members in their time of need.

The program assists individuals by providing money to help individuals

- replace possessions lost in a house fire
- buy gasoline to travel out of town for on-going medical treatments such as chemotherapy
- pay for funeral expenses following the sudden death of a child
- make emergency repairs (such as electrical) in a home when the health or safety of the person is at risk

Members can sign up for this program by going to the SSVEC Web site www.ssvec.org or by requesting a form at their local cooperative office.



Albert Gomez, energy management services specialist, poses with Inaceeta Braswell and Pomp Braswell III who won SSVEC's playhouse for a Habitat for Humanity fundraiser. Gomez along with fellow employees David Bane and Telly Stanger constructed the playhouse.

Community Assistance and Events Sponsorships

One of the basic principles of cooperatives is a commitment to the communities they serve. SSVEC regularly contributes money, special merchandise and volunteer employee time to events that benefit local communities and organizations.

Safe graduation parties, Little Leagues, community celebrations, March of Dimes fundraisers, July 4th fireworks events, the American Red Cross, the Boys and Girls Club of Sierra Vista, Rex Allen Days, and Chamber of Commerce programs are a few of the more than 100 organizations and events that SSVEC contributes to each year.

BOLINGER, SEGARS, GILBERT & MOSS, L.L.P.
CERTIFIED PUBLIC ACCOUNTANTS
PHONE: (806) 747-3806
FAX: (806) 747-3815
8215 NASHVILLE AVENUE
LUBBOCK, TEXAS 79423-1954

INDEPENDENT AUDITORS' REPORT

Board of Directors
Sulphur Springs Valley Electric Cooperative, Inc.
Willcox, Arizona

We have audited the accompanying balance sheet of Sulphur Springs Valley Electric Cooperative, Inc. as of June 30, 2009 and 2008, and the related statements of income and patronage capital, and cash flows for the years then ended. These financial statements are the responsibility of the Cooperative's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Sulphur Springs Valley Electric Cooperative, Inc. as of June 30, 2009 and 2008, and the results of their operations and their cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Bolinger, Segars, Gilbert & Moss LLP

Certified Public Accountants

September 14, 2009

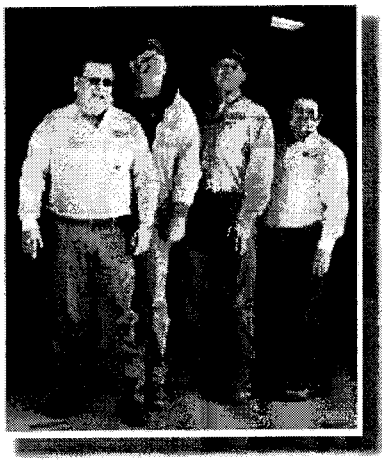
BALANCE SHEET

ASSETS	June 30, 2009	June 30, 2008
UTILITY PLANT AT COST		
Electric Plant in Service	$245,933,272	$226,620,622
Construction Work in Progress	29,835,321	24,942,047
	$275,768,593	$251,562,669
Less: Accumulated Provision for Depreciation and Amortization	80,655,914	75,221,268
	$195,112,679	$176,341,401
OTHER PROPERTY AND INVESTMENTS AT COST OR STATED VALUE		
Non-Utility Property	$5,174,063	$115,029
Investments in Associated Organizations	26,559,569	13,345,486
Other Investments	506,869	545,961
	$32,240,501	$14,006,476
CURRENT ASSETS		
Cash	$628,432	$866,095
Temporary Cash Investments	130,000	
Underbilled Power Cost		2,585,156
Accounts and Notes Receivable (Less allowance for uncollectibles of $695,125 in 2009 and $326,200 in 2008)	8,222,907	8,323,330
Materials and Supplies	3,297,803	2,835,563
Other Current and Accrued Assets	2,532,533	1,963,739
	$14,811,675	$16,573,883
DEFERRED CHARGES	$1,537,723	$1,689,183
Total Assets	$243,702,578	$208,610,943
EQUITIES AND LIABILITIES		
EQUITIES		
Memberships	$193,035	$191,480
Patronage Capital	59,803,347	51,275,039
Other Equities	(545,897)	(829,951)
Other Comprehensive Loss	(148,700)	(157,400)
	$59,301,785	$50,479,168
LONG-TERM DEBT		
CFC Mortgage Notes Less Current Maturities	$132,683,019	$108,530,463
Notes Payable—Fort Huachuca	1,437,330	1,520,024
	$134,120,349	$110,050,487
OTHER LONG-TERM LIABILITIES		
Deferred Compensation	$336,702	$327,405
ACCUMULATED PROVISION FOR PENSIONS AND BENEFITS		
Post-retirement Benefits	$772,988	$748,604
CURRENT LIABILITIES		
Notes Payable	$10,795,377	$8,900,000
Current Maturities of Long-Term Debt	4,852,695	4,212,310
Accounts Payable – Purchased Power	5,217,647	5,788,198
Accounts Payable – Other	2,944,793	6,794,078
Overbilled Power Cost	3,314,689	
Consumer Deposits	2,376,134	1,843,584
Accrued Taxes	1,898,667	1,700,511
Accrued Interest	46,043	37,808
Accrued Payroll	290,737	223,663
Accrued Employee Compensated Absences	2,354,586	2,076,977
Other Current and Accrued Liabilities	66,206	171,889
	$34,157,574	$31,749,018
DEFERRED CREDITS	$15,013,180	$15,256,261
TOTAL EQUITIES AND LIABILITIES	$243,702,578	$208,610,943

STATEMENT OF INCOME AND PATRONAGE CAPITAL

	Years Ended June 30, 2009	2008	Increase (Decrease)
OPERATING REVENUES			
Residential	$48,814,339	$43,703,106	$5,111,233
Irrigation	16,245,092	14,545,467	1,699,625
Commercial and Industrial	39,144,053	33,215,629	5,928,424
Public Buildings and Other Authorities	2,886,435	4,395,643	(1,509,208)
Power Cost Adjustments	(5,899,845)	1,860,413	(7,760,258)
Rent from Electric Property	703,219	880,106	(176,887)
Other Operating Revenues	1,240,482	901,680	338,802
Total Operating Revenues	$103,133,775	$99,502,044	$3,631,731
OPERATING EXPENSES			
Purchased Power	$67,663,290	$63,192,101	$4,471,189
Transmission	522,760	316,195	206,565
Distribution – Operation	8,412,360	8,288,980	123,380
Distribution – Maintenance	2,737,996	2,445,527	292,469
Consumer Accounts	3,769,653	2,886,551	883,102
Customer Service and Information	776,674	706,045	70,629
Sales Expenses	1,084,476	564,923	519,553
Administrative and General	3,737,437	3,719,348	18,089
Depreciation and Amortization	8,373,955	7,514,978	858,977
Taxes	1,218,684	1,014,000	204,684
Other Interest	294,480	401,766	(107,286)
Other Deductions	210,508	178,518	31,990
Total Operating Expenses	$98,802,273	$91,228,932	$7,573,341
OPERATING MARGINS Before Fixed Charges	$4,331,502	$8,273,112	$(3,941,610)
FIXED CHARGES Interest on Long-Term Debt	6,889,939	6,008,787	881,152
OPERATING MARGINS (DEFICIT) - After Fixed Charges	$(2,558,437)	$2,264,325	$(4,822,762)
Capital Credits	11,238,715	3,118,697	8,120,018
NET OPERATING MARGINS	$8,680,278	$5,383,022	$3,297,256
NON-OPERATING MARGINS			
Interest Income and Dividend Income	$105,319	$106,058	$(739)
Other Non-operating Margin	280,337	166,529	113,808
	$385,656	$272,587	$113,069
NET MARGINS	$9,065,934	$5,655,609	$3,410,325
OTHER COMPREHENSIVE INCOME (LOSS) Post-Retirement Benefit Liability Adjustment	8,700	(157,400)	
COMPREHENSIVE INCOME	$9,074,634	$5,498,209	
Post-Retirement Benefit Liability Adjustment	(8,700)	157,400	
PATRONAGE CAPITAL – Beginning of Year	51,275,039	45,883,749	
NONOPERATING MARGINS TRANSFERRED TO PRIOR YEAR DEFICIT	(279,994)		
PATRONAGE CAPITAL RETIRED	(257,632)	(264,319)	
PATRONAGE CAPITAL – End of Year	$59,803,347	$51,275,039	

COOPERATIVE ANNIVERSARIES THIS YEAR



35 years -Phillip Rodriguez (Willcox Meter Reading Supervisor), Mike Ringnell (Electrical Apparatus Technician); 30 years - Tony Davis (Foreman II), Bob Bernal (Maintenance/Operations Supervisor)

25 years - Wayne Crane (Public Relations Manager), Charlene Bennett (Executive Assistant) and Anselmo Torres, Jr. (Chief Operations and Engineering Officer)

25 years - Robert Lewis (Engineering Services Coordinator),Larry Hill (Foreman II), and Steve Denman (Sierra Vista Meter Reading Supervisor)

20 years	Joe Akers	Robert Alvarez
	Ann Stratton	Jack Thompson
	Lorie Zamora	
15 years	Carla Bates	Sam Foster
	David Gaskill	Christie George
	Manny Gonzales	Eric Hessert
	Creden Huber	Tina Hungerford
	Becca Lorta	Felipe Mendoza
	Debbie White	
10 years	Scott Rogers	Sonny Smith

5 years	Ted Bright	Trish Call
	Rick Carner	Rusty Evans
	Barbara Gerencser	Agueda Guerrero
	Albert Jacquez	Sean McClain
	Stephen McKinney	Doug Miller
	Mike Paquet	John Peebles
	Vic Plumb	Amanda Rahe
	Thomas Riggs	Diane Shipman
	Telly Stanger	Justin Stukel
	Kurt Towler	Roxanne Williams
	Daniel Wilson	Melody Wolf

PHOTO CREDITS:

Cover design, Larry Scott. All photos by Wayne Crane and Larry Scott, SSVEC, unless indicated otherwise.

DESIGN:

Kestrel Graphic Design

PRINTING:

Arizona Lithographers

Sulphur Springs Valley Electric Cooperative, Inc.
P.O. Box 820
Willcox, AZ 85644-0820

NOTICE OF ANNUAL MEETING

The 72nd annual meeting of Sulphur Springs Valley Electric Cooeprative, Inc. will be held at the Buena High School Gymnasium (5525 Buena School Blvd.) in Sierra Vista, Arizona, on Thursday evening, April 29, 2010, at 7:00 p.m. Registration to establish a quorum will begin at 6:00 p.m.

- Reports by the Board President, Treasurer and CEO
- Announcement of the results of the 2010 Direction Elections
- Announcement of the 2010 Scholarship winners
- Twenty door prizes of $50 billing credits
- Refreshments and registration gifts

Grand Prize—2002 Toyota Tacoma Pickup retired from SSVEC's vehicle fleet.

Sunrise at the Cottonwood Substation (photo by Deana Shull) Cottonwood is SSVEC's newest substation located adjacent to the Benson Operations facility on Cooperative Way. It was energized on March 4, 2010. This brings to 25 the total number of distribution substations serving cooperative members.

EXHIBIT G

RENEWABLE ENERGY

RADIO

Client: **Sulphur Springs Valley Electric Cooperative**
Job No: **SSV913**
Description: **"SunWatts Man" 6-A Rev.**
:60 Radio Spot
Date: **REVISED 1-8-10**

Tyau Advertising, Inc.

NOTE:
Copy revisions in bold italics

ANNCR: WHEN YOU THINK OF RENEWABLE ENERGY, YOU PROBABLY THINK OF IT AS...LIGHT YEARS IN THE FUTURE.

MAN: O-O-H-H, BUT ONE DAY, IT'S GONNA BE REALLY BIG...

ANNCR: AND CLEAN, GREEN ENERGY SOURCES LIKE SOLAR OR WIND ARE GOOD FOR THE PLANET AND SOME DAY, YOU'LL *DEFINITELY* BE LOOKING INTO IT.

MAN: OH WHEN IT GETS HERE...I'M ALL OVER IT.

ANNCR: WELL HOW ABOUT TODAY?

MAN: UM, SAY AGAIN?

ANNCR: WITH THE NEW SUNWATTS PROGRAM FROM SSVEC, IT MAY BE TIME TO LOOK AGAIN AT RENEWABLE ENERGY. BECAUSE WITH SUNWATTS, YOU CAN GET ***SIGNIFICANT FINANCIAL INCENTIVES FOR INSTALLING A QUALIFIED RENEWABLE ENERGY SYSTEM.***

MAN: DID I JUST HEAR ***SIGNIFICANT INCENTIVES***?

ANNCR: NOT TO MENTION LOW COST LOANS AND SOME GENEROUS STATE AND FEDERAL TAX BENEFITS TOO.

MAN: O-O-K. THAT'S WORTH A PHONE CALL. SO THAT WAS SUN...WHATS?

ANNCR: SUNWATTS. FROM SULPHUR SPRINGS VALLEY ELECTRIC COOPERATIVE. ***WITH FINANCIAL INCENTIVES FOR INSTALLING A QUALIFIED RENEWABLE ENERGY SYSTEM.*** FIND OUT HOW THE ENERGY SOURCE OF THE FUTURE... COULD BE IN YOUR VERY *NEAR* FUTURE. CALL SSVEC TODAY.

RADIO

Client: **Sulphur Springs Valley Electric Cooperative**
Job No: **SSV914**
Description: **"SunWatts Woman" 6-A Rev.**
:60 Radio Spot
Date: **REVISED 1-8-10**

Tyau Advertising, Inc.

NOTE:
Copy revisions in bold italics

ANNCR: RENEWABLE ENERGY. MOST OF US AGREE THAT IT IS THE ENERGY SOURCE FOR THE FUTURE.

WOMAN: I AM TOTALLY WITH YOU ON THAT!

ANNCR:
MORE AND MORE, THE WORLD IS TURNING TO CLEAN, GREEN ENERGY LIKE SOLAR, WIND AND GEOTHERMAL.

WOMAN: (A ROOTING FOR OTHERS TONE)
MORE POWER TO 'EM!

ANNCR: SO... WHAT ABOUT YOU?

WOMAN: UHHH—WHO *ME*??!

ANNCR: NOW WITH THE NEW SUNWATTS PROGRAM FROM SSVEC, MAYBE IT'S TIME YOU RETHINK RENEWABLE ENERGY. FOR YOURSELF! WITH SUNWATTS, ***YOU CAN GET SIGNIFICANT FINANCIAL INCENTIVES FOR INSTALLING A QUALIFIED RENEWABLE ENERGY SYSTEM***.

WOMAN: WOW! ***SIGNIFICANT INCENTIVES***?

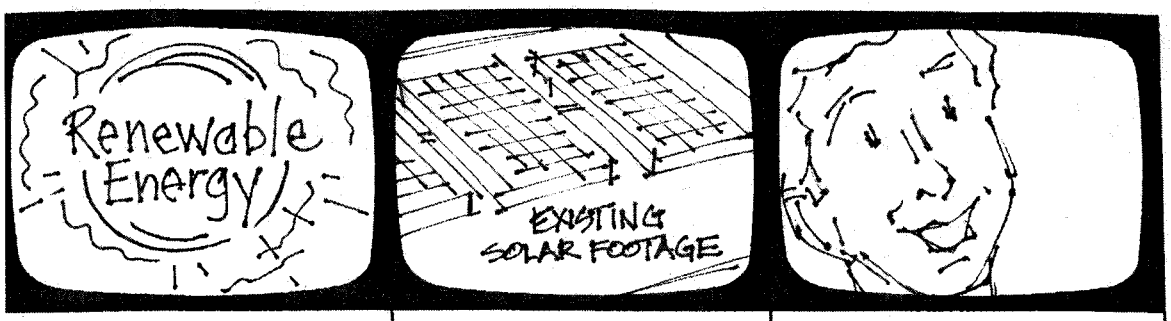
ANNCR: PLUS, TAKE ADVANTAGE OF LOW INTEREST LOANS *AND* ENJOY GENEROUS STATE AND FEDERAL TAX BENEFITS.

WOMAN: SUNWATTS YOU SAY? HMMM. IT'S WORTH A PHONE CALL.

ANNCR: CALL SULPHUR SPRINGS VALLEY ELECTRIC COOPERATIVE AND FIND OUT MORE ABOUT THE NEW SUNWATTS PROGRAM. AND ABOUT GETTING ***SIGNIFICANT FINANCIAL INCENTIVES FOR INSTALLING A QUALIFIED RENEWABLE ENERGY SYSTEM***. CALL SSVEC TODAY AND FIND OUT HOW THE CLEAN, GREEN ENERGY OF THE FUTURE... COULD BE IN YOUR FUTURE.

Tyau Advertising, Inc.

Client: Sulphur Springs Valley Electric Co-op
Spot #: SSV915
Title: "Renewable Energy" 3A Rev. 1-8-10
Length: :30 PG. 1



ANNCR: RENEWABLE ENERGY. IT'S...

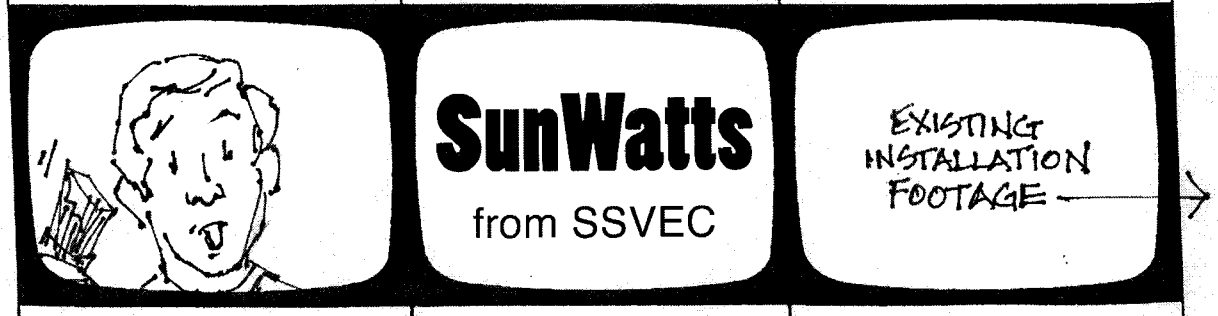
THE ENERGY SOURCE OF THE FUTURE.

GUY: I AGREE A HUNDRED PERCENT!

ANNCR: MORE AND MORE, THE WORLD IS TURNING TO CLEAN, GREEN ENERGY RESOURCES.

GUY: MORE POWER TO 'EM!

ANNCR: (PAUSE) UH, BUT HOW ABOUT YOU?



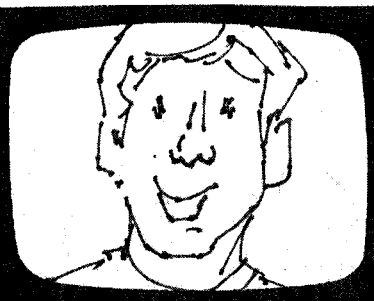
GUY: WHO ME?

ANNCR: NOW WITH THE NEW SUNWATTS PROGRAM FROM SSVEC,...

MAYBE IT'S TIME YOU RETHINK RENEWABLE ENERGY.

Tyau Advertising, Inc.

Client: Sulphur Springs Valley Electric Co-op
Spot #: SSV915
Title: "Renewable Energy" 3A Rev. 1-8-10
Length: :30 PG. 2

SIGNIFICANT INCENTIVES!		EXISTING SOLAR FOOTAGE
GET ***SIGNIFICANT FINANCIAL INCENTIVES FOR INSTALLING A QUALIFIED RENEWABLE ENERGY SYSTEM.***	GUY: IT'S WORTH A PHONE CALL.	ANNCR: FIND OUT MORE ABOUT SUNWATTS.
SunWatts from SSVEC		
CALL SSVEC TODAY!		

Maybe it's time for serious reflection about going solar.

Maybe you've thought of renewable energy as something that's light years in the future. With the ***SunWatts***, maybe it's time to reflect again on the subject. Because now, you can get ***significant financial incentives for installing a qualified renewable energy system.*** You can also take advantage of low-interest loans and be eligible for generous state and federal tax credits.* Find out how the clean, green energy of the future could be in your near future. Call SSVEC about ***SunWatts*** today.

* Talk to your tax professioanal.

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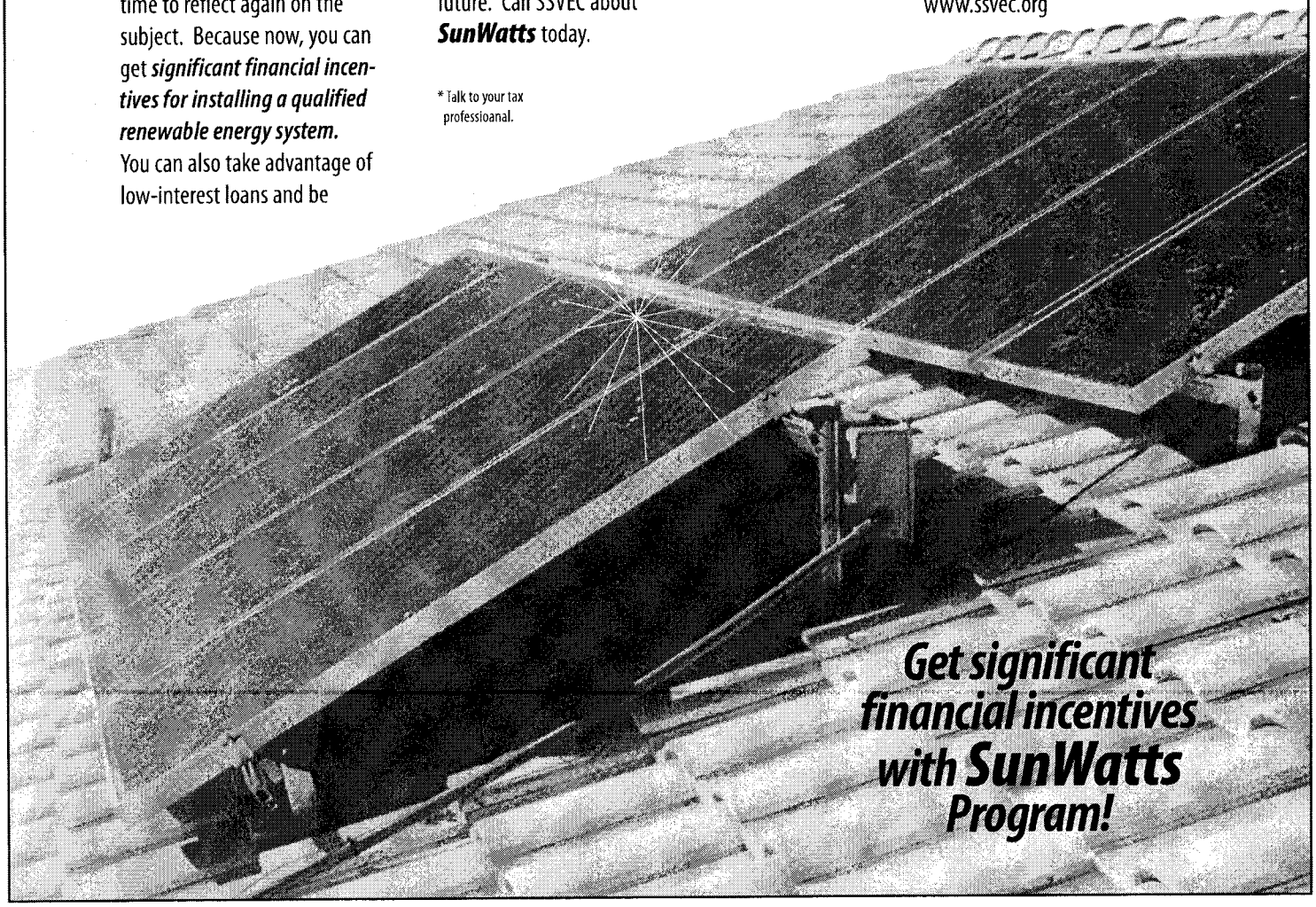
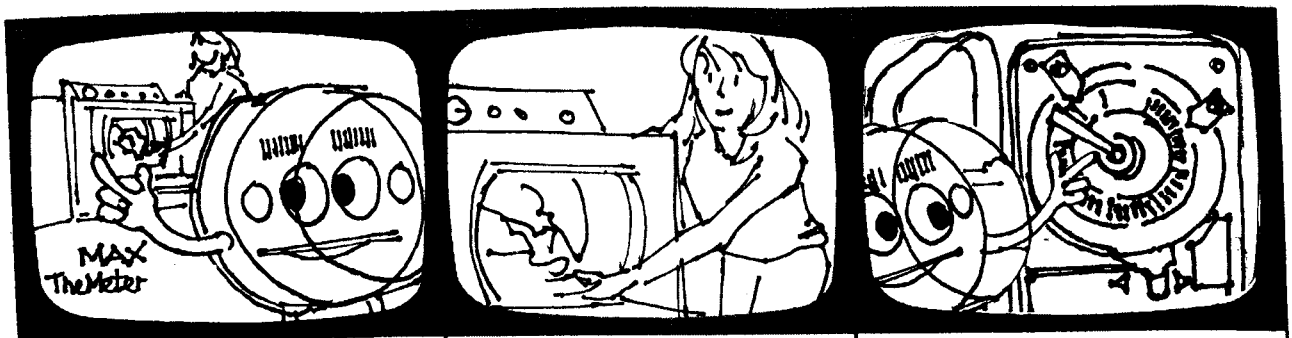


Get significant financial incentives with SunWatts Program!

TIME-OF-USE

Tyau Advertising, Inc.

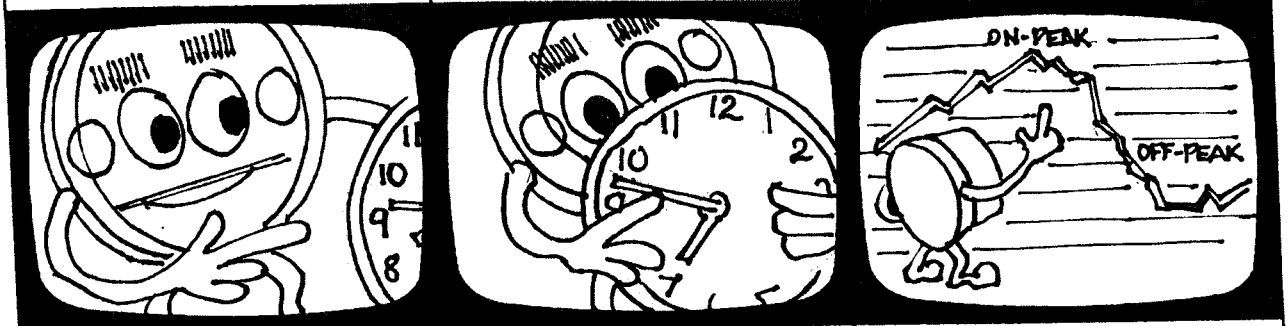
Client: SULPHUR SPRINGS VALLEY ELECTRIC
Spot #: SSV901
Title: "MAX-TIME OF USE" 3A
Length: :30



MAX: WOULD YOU WASH LATE FOR A LOWER RATE?

ANNCR: IF YOU'RE WILLING TO CHANGE YOUR ENERGY HABITS, ...

SSVEC'S TIME OF USE RATE PROGRAM MIGHT WORK FOR YOU.



MAX: SHIFT YOUR POWER...

TO AN OFF-PEAK HOUR!

ANNCR: WELL PUT MAX. YOU SHIFT SOME OF YOUR ENERGY USE FROM...

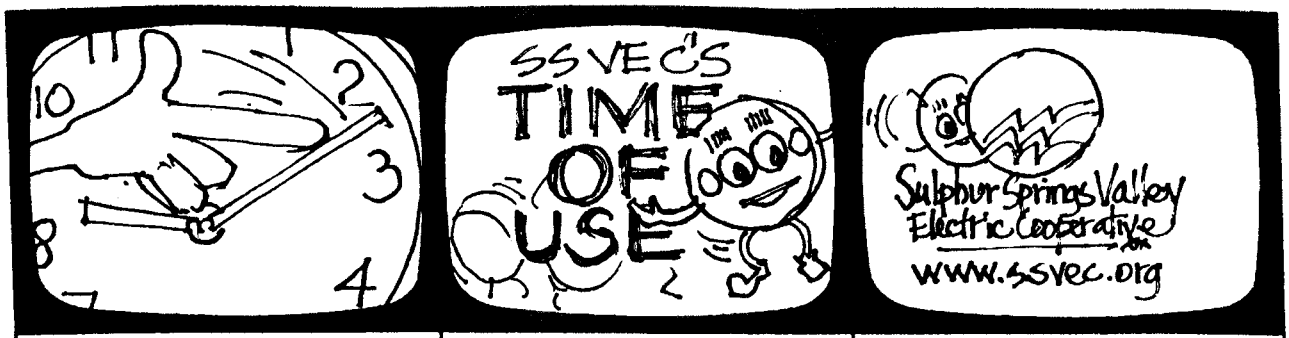
THE SYSTEM'S BUSY "ON-PEAK" TIMES TO...

LESS BUSY "OFF-PEAK" TIMES. AND FOR...

HELPING US OUT, YOU GET A LOWER RATE.

Tyau Advertising, Inc.

Client: SULPHUR SPRINGS VALLEY ELECTRIC
Spot #: SSV901
Title: "MAX-TIME OF USE" 3A
Length: :30



MAX: TIME IS MONEY!

ANNCR: FIND OUT IF SSVEC'S TIME OF USE IS RIGHT FOR YOU.

MAX: VISIT SSVEC.ORG.

Tyau Advertising, Inc.

Client: SULPHUR SPRINGS VALLEY ELECTRIC
Spot #: SSV900
Title: "QUESTION" 3A
Length: :30 PG. 1

GOES A THUMBS UP

COUPON GOING IN ENVELOPE

ANNCR: WOULD YOU DRIVE AN EXTRA BLOCK...

TO SAVE TWENTY CENTS A GALLON?

WOULD YOU TAKE TWO MINUTES TO MAIL IN A...

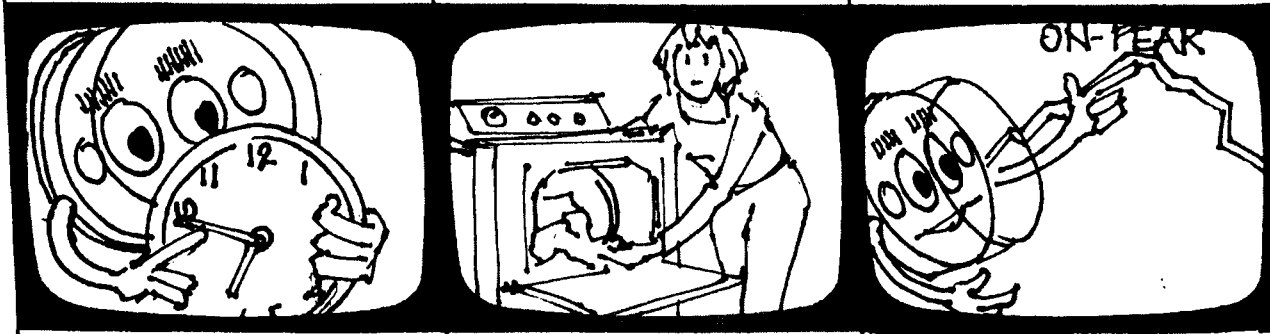
INTO MAIL BOX

POINTS TO HER GROCERIES

FIFTY DOLLAR MAIL-IN REBATE COUPON?

AND DOES SCORING A GREAT DEAL AT THE GROCERY STORE...

BRING THAT LITTLE FEEL OF VICTORY?



THEN MAYBE YOU'RE RIGHT FOR SSVEC'S...

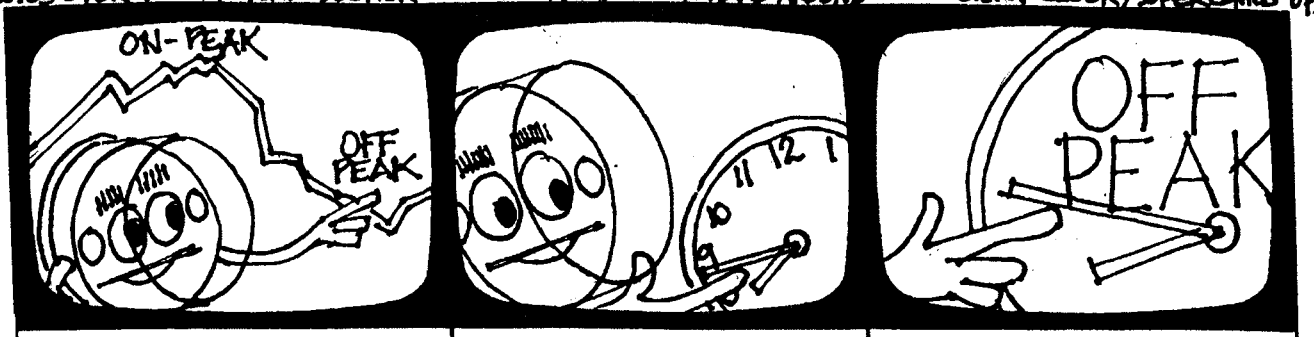
TIME OF USE RATE DISCOUNT PROGRAM

WHERE YOU SHIFT ENERGY USE TO OUR LESS BUSY, ...

Tyav Advertising, Inc.

Client: SULPHUR SPRINGS VALLEY ELECTRIC
Spot #: SSV900
Title: "QUESTION" 3A
Length: :30 PG. 2

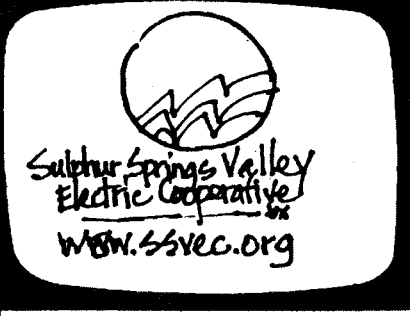
MOVES OVER TO OFF-PEAK SECTION. MAX SPINS CLOCK HAND AROUND C.U. OF CLOCK, SUPER COMES UP



OFF-PEAK HOURS TO GET A LOWER RATE. FIND OUT IF THE TIME OF USE PROGRAM IS RIGHT FOR YOU.

MAX: SHIFT YOUR POWER...

TO AN OFF-PEAK HOUR!



BECAUSE...

TIME IS MONEY!
VISIT SSVEC.ORG.

RADIO

Client: **Sulphur Springs Valley Electric Cooperative**
Job No: **SSV903**
Description: **"Laundry" 6A**
:60 Radio Spot
Date: **12-9-09**

Tyau Advertising, Inc.

MAX:
WOULD YOU LAUNDER LATE FOR A LOWER RATE? HI, MAX THE METER HERE TO TALK ABOUT SSVEC'S TIME OF USE RATE PROGRAM. THAT *COULD* SAVE YOU MONEY.

ANNCR:
THAT'S RIGHT, MAX. WITH SSVEC'S TIME OF USE PROGRAM, YOU *SWITCH* SOME OF YOUR ELECTRIC USE FROM OUR BUSIER "ON-PEAK" HOURS TO OUR LESS BUSY "OFF-PEAK" HOURS. RUNNING THE DISHWASHER AT NIGHT, FOR EXAMPLE. MAYBE DOING YOUR LAUNDRY ON SUNDAY. AND HAVING THE POOL FILTER COME ON OVERNIGHT YOU SHIFT YOUR TIME OF USE!

MAX:
YEP, YOU GET A SPECIAL ELECTRIC METER...

ANNCR:
...THAT IN ADDITION TO RECORDING HOW *MUCH* ELECTRICITY YOU USE, ALSO TRACKS *WHEN* YOU USE IT. AND IF *YOU'RE* WILLING TO CHANGE YOUR ENERGY USE HABITS TO HELP *US* EVEN OUT THE GRID'S PEAKS AND VALLEYS, YOU'LL GET THE LOWER "TIME OF USE" ELECTRIC RATE THAT *MAY* SAVE YOU MONEY.

MAX:
SHIFT YOUR POWER TO AN OFF-PEAK HOUR!

ANNCR:
ARE YOU AND SSVEC'S TIME OF USE PROGRAM RIGHT FOR EACH OTHER? FIND OUT MORE BY VISITING OUR WEBSITE AND SEE IF YOU COULD BENEFIT.

MAX:
TIME IS MONEY! VISIT US AT SSVEC.ORG.
AND THANKS FOR HELPING!

RADIO

Client: **Sulphur Springs Valley Electric Cooperative**
Job No: **SSV904**
Description: **"Questions" 6A (Positive Version)**
:60 Radio Spot
Date: **REVISED 1-7-10**

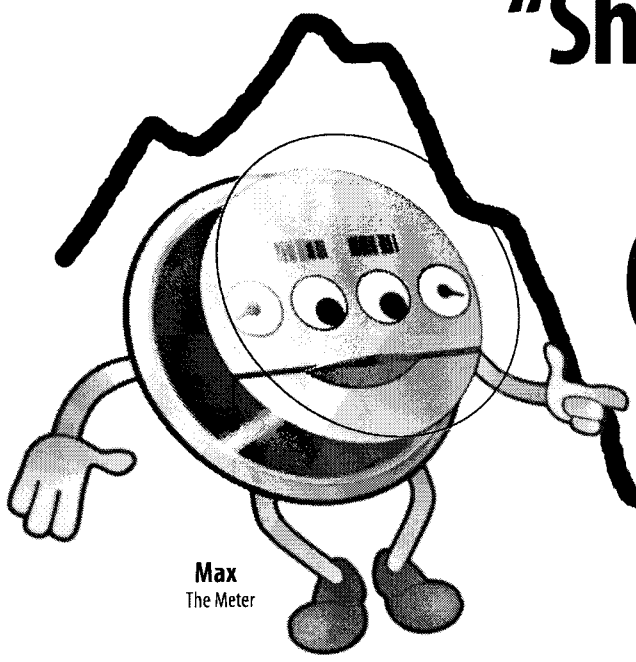
Tyau Advertising, Inc.

ANNCR:

WOULD YOU DRIVE AN EXTRA BLOCK TO SAVE TWENTY CENTS A GALLON ON GAS? WOULD YOU TAKE TWO MINUTES TO MAIL IN A FIFTY DOLLAR REBATE COUPON? DOES SCORING THAT GREAT DEAL AT THE GROCERY STORE GIVE YOU A LITTLE FEELING OF VICTORY? IF YOU ANSWERED YES TO THESE QUESTIONS, YOU MIGHT BE A GOOD CANDIDATE FOR THE TIME OF USE DISCOUNT RATE PROGRAM FROM SULPHUR SPRINGS VALLEY ELECTRIC COOPERATIVE. WITH TIME OF USE, YOU SHIFT SOME OF YOUR ELECTRICITY USE FROM BUSY, "ON-PEAK" HOURS TO LESS BUSY "OFF-PEAK" HOURS. LIKE DOING LAUNDRY AND RUNNING YOUR DISHWASHER AT NIGHT OR ON SUNDAY. AND ADJUSTING THE POOL FILTER TO RUN OVERNIGHT. YOU CHANGE YOUR "TIME OF USE!" AND FOR HELPING US EVEN OUT THE PEAKS AND VALLEYS ON THE ELECTRIC GRID, YOU GET SSVEC'S LOWER TIME OF USE RATE.

MAX THE METER:

TIME IS MONEY! HI MAX THE METER HERE. FIND OUT IF YOU AND SSVEC'S TIME OF USE ARE RIGHT FOR EACH OTHER. SHIFT YOUR POWER...TO AN OFF-PEAK HOUR! VISIT SSVEC.ORG TO LEARN MORE ABOUT THE TIME OF USE RATE PROGRAM. WHERE TIME IS MONEY! OH, AND THANKS FOR HELPING!

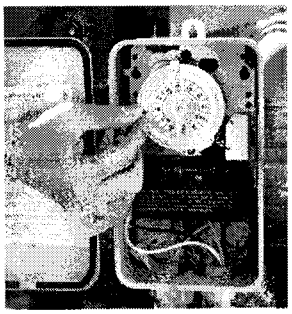


Max
The Meter

"Shift your power to an Off-Peak Hour!"

Our *Time of Use* rate program may save you money.

Like any power company, SSVEC has times of heavy usage or "peaks" and lighter usage. We're looking for some members who'd be willing to adjust their energy use habits by shifting energy-using tasks from our busier On-Peak hours to Off-Peak hours. For example, by doing laundry at night or on Sunday. Or running the pool filter late night or early morning. In return for helping us, you'd get a special electric rate that may save you money. Visit our website and find out if the ***Time of Use*** rate program might be right for you.



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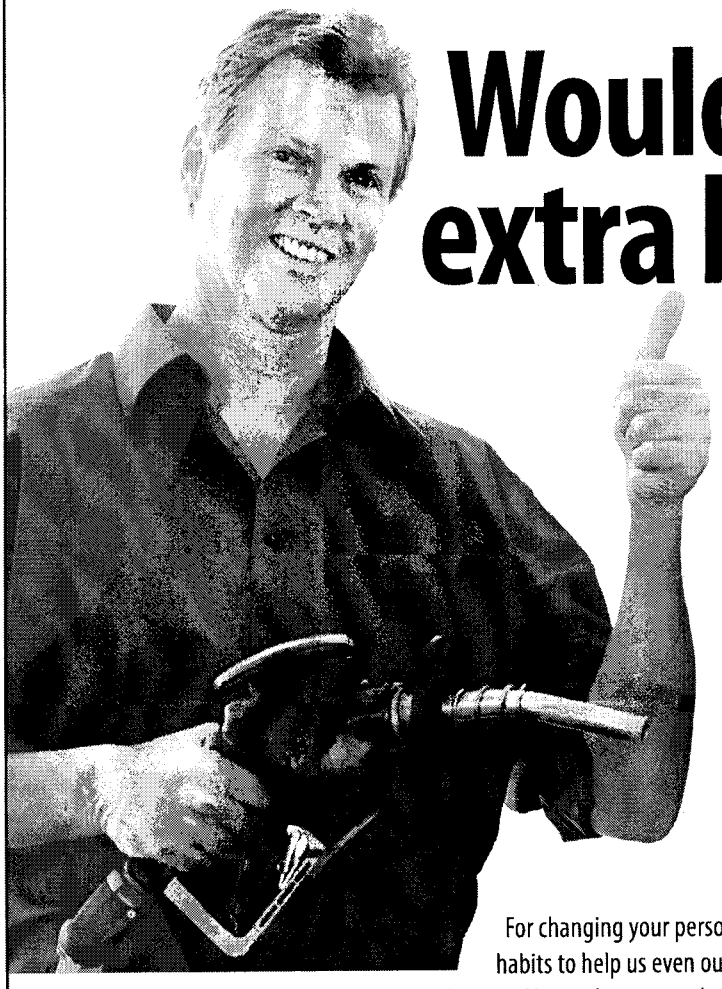
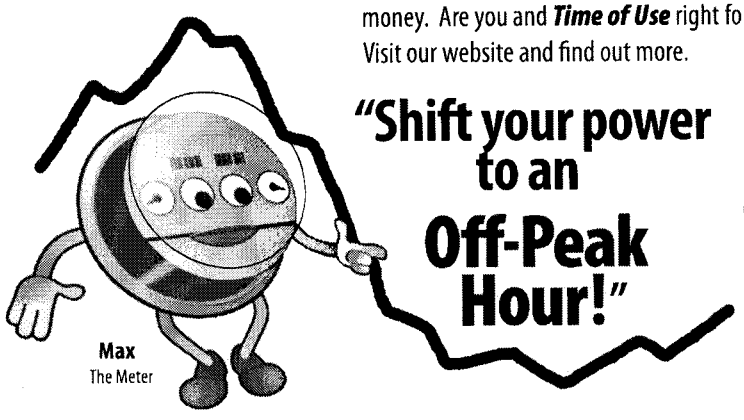


Would you drive an extra block to save 20¢ a gallon?

If you're the type of person who enjoys saving a little money, you might be right for SSVEC's ***Time of Use*** rate program. With ***Time of Use***, you shift your energy use from the system's busier "On-Peak" hours to less busy "Off-Peak" hours. Running the washer or dishwasher at night or on Sunday, for example. Or adjusting the pool filter to come on at night.

For changing your personal energy use habits to help us even out the system's peaks and valleys, you'd get a lower rate that may save you money. Are you and ***Time of Use*** right for each other? Visit our website and find out more.



Sulphur Springs Valley Electric Cooperative, Inc.

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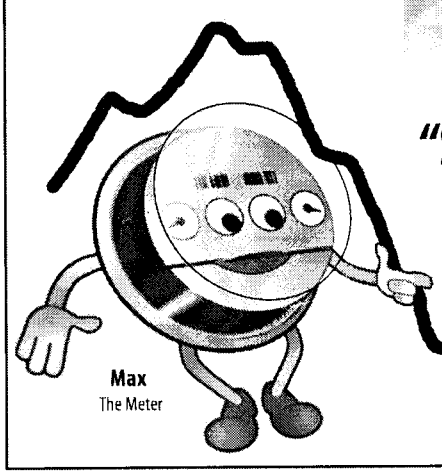
Our ***Time of Use*** rate program may save you money!

Would you wash late for a lower rate?

If you'd be willing to change your energy use habits to get a lower electric rate, you might want to consider ***SSVEC's Time of Use*** rate program. With ***Time of Use***, you shift your energy use from high system use "On-Peak" hours to less busy "Off-Peak" hours. And for helping your electric cooperative spread the load more evenly, you get a lower rate. Visit our website to find out if ***Time of Use*** may be right for you.



Max
The Meter

"Shift your power to an Off-Peak Hour!"

Sulphur Springs Valley Electric Cooperative, Inc.

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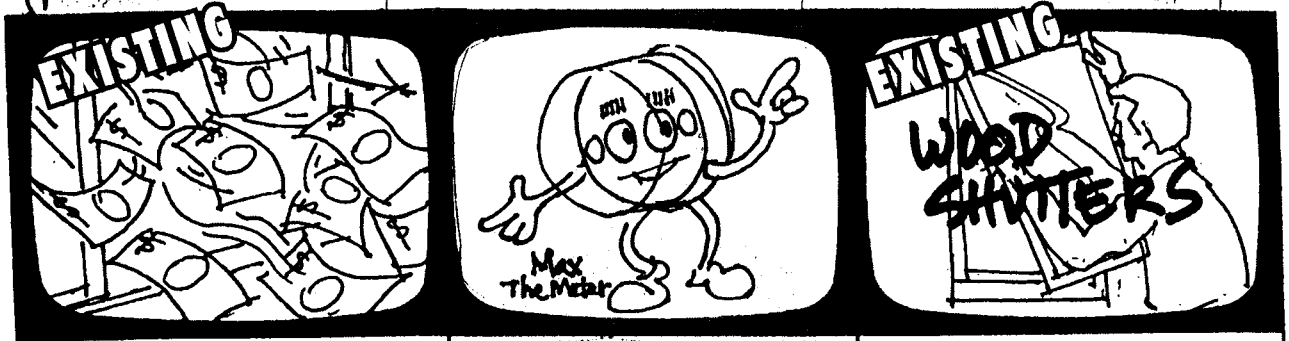
www.ssvec.org

Our ***Time of Use*** rate program may save you money!

METER MISER

Tyau Advertising, Inc.

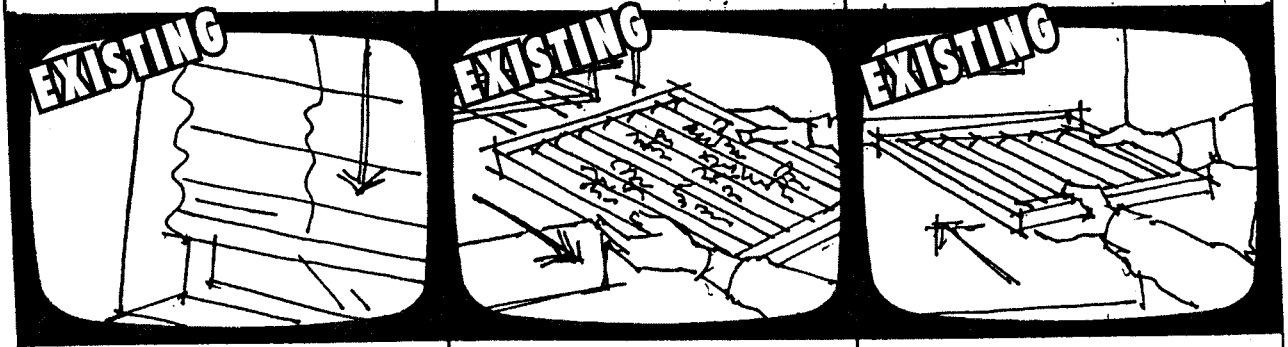
Client: SULPHUR SPRINGS VALLEY ELEC. COOP
Spot #: SSV902
Title: "OUT THE WINDOW" 3A REVISED
Length: :30 PAGE 1



MAX: SPENDING MORE MONEY ON ENERGY BILLS CAN BE LIKE LETTING MONEY GO OUT THE WINDOW.

BUT A FEW SMALL STEPS CAN ADD UP TO BIG SAVINGS ON ENERGY COSTS.

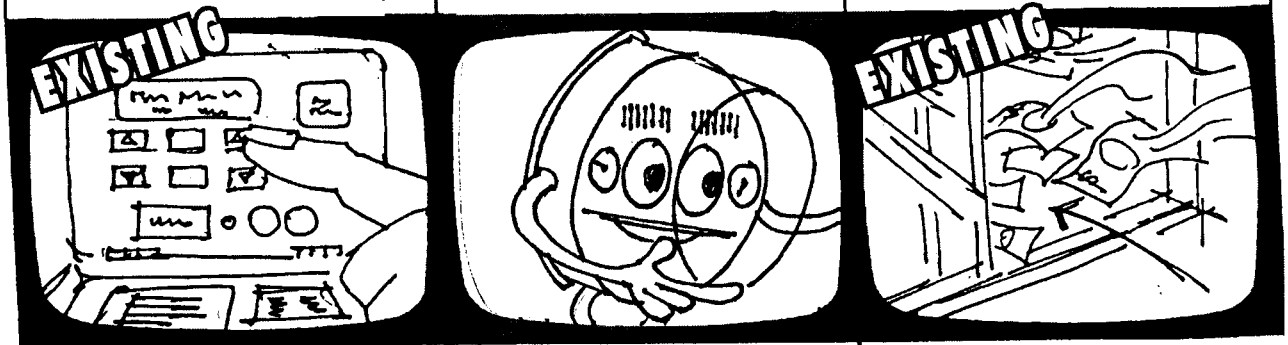
ANNCR: LIKE COVERING THOSE WINDOWS TO REDUCE...



HEATING AND COOLING COSTS.

CHANGING THE FILTERS ON YOUR...

HEATING AND A/C SYSTEM REGULARLY.



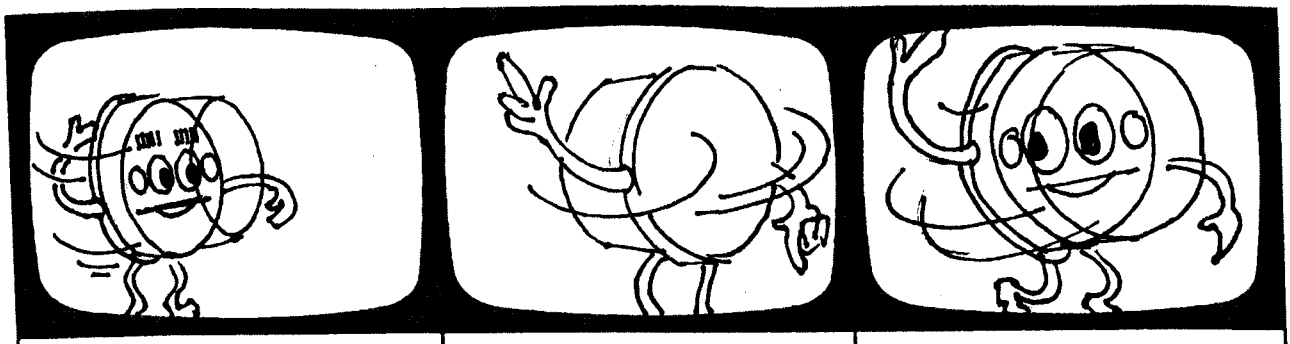
AND INSTALLING A PROGRAMMABLE THERMOSTAT TO LOWER COSTS EVEN MORE.

MAX: HEY, SAVING ON ENERGY BILLS IS...

LIKE HAVING A LITTLE EXTRA MONEY COMING IN EVERY MONTH.

Tyau Advertising, Inc.

Client: SULPHUR SPRINGS VALLEY ELECTRIC
Spot #: SSV902
Title: "OUT THE WINDOW" 3A REVISED
Length: :30



WHEN I SPIN...

SLOWER, YOUR...

BILL IS LOWER.

ANNCR: FIND 101 ENERGY-SAVING TIPS AT SSVEC.ORG.

RADIO

Client: **Sulphur Springs Valley Electric Cooperative**
Job No: **SSV 2009**
Description: **"Meter Misers Radio #1"**
:60 Radio Spot
Date: **REVISED 1-8-09**

Tyau Advertising, Inc.

ANNCR:

EVER WATCH YOUR ELECTRIC METER SPINNING AROUND?
WE HAVE SOME WAYS TO SLOW THAT THING DOWN.
"METER MISERS" THEY'RE CALLED CUZ HERE'S WHAT THEY DO.
THEY SAVE ON YOUR ENERGY USE AND YOUR MONTHLY BILLS TOO.
SET YOUR WATER HEATER TEMPERATURE AT ONE HUNDRED TWENTY.
WEATHER-STRIP WINDOWS—THAT COULD SAVE PLENTY.
DON'T RUN THE HOT WATER WHEN YOU WASH OR SHAVE.
WHEN POSSIBLE DO COOKING IN YOUR MICROWAVE
DO FULL LOADS OF LAUNDRY, TAKE A SHORTER HOT SHOWER
SO MANY SMALL, SIMPLE WAYS TO SAVE ON THE POWER.

MAX THE METER:

SSVEC WANTS TO HELP YOU MAKE YOUR METER SPIN SLOWER
MAKING YOUR MONTHLY ELECTRIC BILL LOWER.

(PAUSE)

HI, MAX THE METER HERE! AT SULPHUR SPRINGS VALLEY ELECTRIC COOPERATIVE, WE BELIEVE ONE OF OUR MOST IMPORTANT JOBS IS HELPING YOU USE LESS ELECTRICITY. AND IF WE CAN HELP YOU GET YOUR METER SPINNING SLOWER, WE'RE HELPING MAKE YOUR ELECTRIC BILL LOWER.

ANNCR:

FOR MORE INFORMATION, CALL SSVEC. OR, FOR ONE HUNDRED AND ONE LOW-COST AND NO-COST METER MISER MEASURES, VISIT SSVEC. ORG.

RADIO

Client: **Sulphur Springs Valley Electric Cooperative**
Job No: **SSV 2009**
Description: **"Meter Misers Radio #2"**
:60 Radio Spot
Date: **REVISED 1-8-09**

Tyau Advertising, Inc.

ANNCR:

INTRODUCING METER MISERS, CALLED THAT BECAUSE
SLOWING YOUR ELECTRIC METER IS WHAT EACH ONE DOES
THEY'RE MEASURES THAT MAKE YOUR METER SPIN SLOWER
WHICH, IN TURN, WILL MAKE YOUR ELECTRIC BILL LOWER.
NUMBER FOUR METER MISER CAN SLOW DOWN THAT METER
IT SAYS DRAIN THE SEDIMENT FROM YOUR WATER HEATER
CHANGE TO CFL LIGHTING, IT USES LESS POWER
AND SAVE EVEN MORE WITH LOW FLOW HEADS ON THE SHOWER
METER MISER SEVENTEEN IS A QUICK HELPFUL HINT
BEFORE EACH DRYER LOAD, CLEAN OUT THE LINT

MAX THE METER:

AND NUMBER TWENTY SEVEN IS ANOTHER EASY PROPOSAL.
USE ONLY COLD WATER WITH THE GARBAGE DISPOSAL.

(PAUSE)

HI, MAX THE METER HERE! AT SULPHUR SPRINGS VALLEY ELECTRIC COOPERATIVE, WE BELIEVE ONE OF OUR MOST IMPORTANT JOBS IS HELPING YOU USE LESS ELECTRICITY. AND IF WE CAN HELP YOU GET YOUR METER SPINNING SLOWER, WE'RE HELPING MAKE YOUR ELECTRIC BILL LOWER.

ANNCR:

FOR MORE INFORMATION, CALL SSVEC. OR, FOR ONE HUNDRED AND ONE LOW-COST AND NO-COST METER MISER MEASURES, VISIT SSVEC.ORG.

RADIO

Tyau Advertising, Inc.

Client: **Sulphur Springs Valley Electric Cooperative**
Job No: **SSV 2009**
Description: **"Meter Misers Radio #3"**
:60 Radio Spot
Date: **REVISED 1-8-09**

ANNCR:

SAVING MONEY IS ONE OF LIFE'S LITTLE PLEASURES
NOW SSVEC INTRODUCES SOME CASH-SAVING MEASURES
METER MISERS WE CALL THEM; THERE ARE 101.
THEY CAN SAVE ON YOUR BILL WHEN ALL'S SAID AND DONE
CONSIDER NUMBER FIFTEEN OF OUR HOME HELPFUL HINTS
WHEN DOING LAUNDRY ALWAYS SET TO COLD RINSE.
AND THINK OF THE WATTAGE YOU CAN REDUCE
BY TURNING OFF LIGHTS WHEN THEY'RE NOT IN USE.
METER MISER NINETY-TWO SAYS YOU'LL SAVE IF YOU'RE ABLE
TO CAULK THE WALL ENTRY POINTS OF WIRES, PIPES AND CABLE.

MAX THE METER:

AND YOU'LL REALLY SLOW THE SPEED THAT YOUR METER IS MOVED
WHEN YOU BUY NEW APPLIANCES THAT ARE ENERGY STAR APPROVED

(PAUSE)

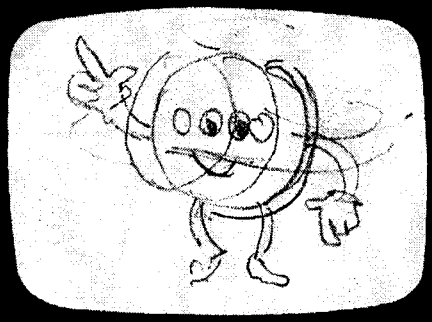
HI, MAX THE METER HERE! AT SULPHUR SPRINGS VALLEY ELECTRIC COOPERATIVE, WE BELIEVE ONE OF OUR MOST IMPORTANT JOBS IS HELPING YOU USE LESS ELECTRICITY. AND IF WE CAN HELP YOU GET YOUR METER SPINNING SLOWER, WE'RE HELPING MAKE YOUR ELECTRIC BILL LOWER.

ANNCR:

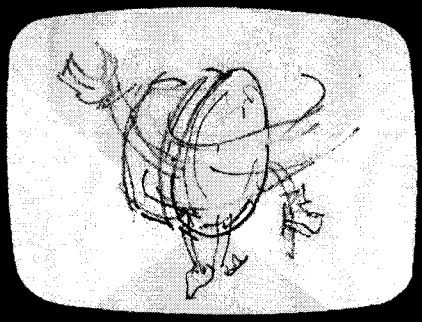
FOR MORE INFORMATION, CALL SSVEC. OR, FOR ONE HUNDRED AND ONE LOW-COST AND NO-COST METER MISER MEASURES, VISIT SSVEC. ORG.

Tyau Advertising, Inc.

Client: SULPHUR SPRINGS VALLEY ELECTRIC
Spot #: SSV 851
Title: "ANIMATED" 3A PG 2
Length: :30

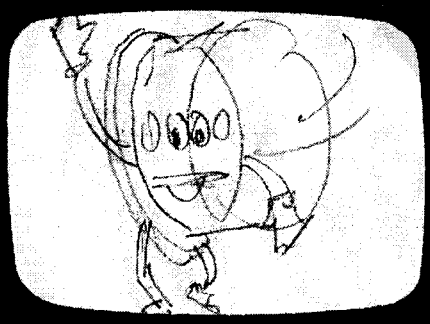


MAX: I'M MAX THE METER...



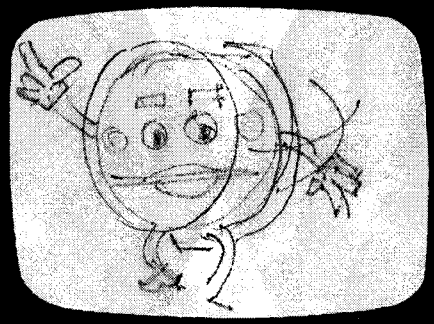
AND I'D LIKE TO BEGIN...

01: 11: 54: 23



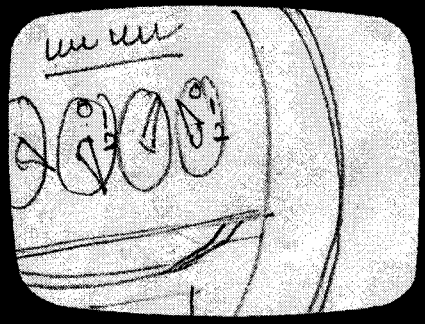
BY TALKING 'BOUT...

01: 07: 35: 00

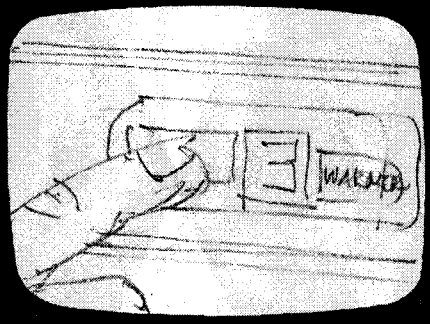


ELECTRIC USE...

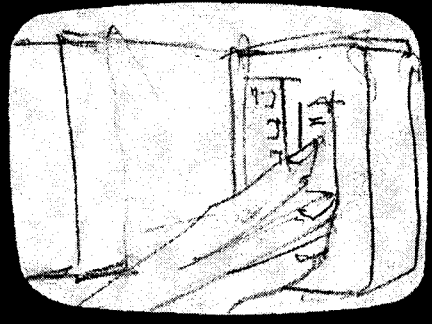
01: 25: 24: 23



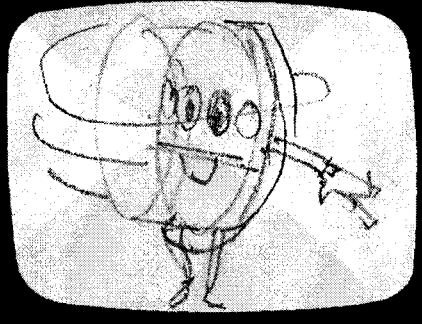
AND MY RATE OF SPIN



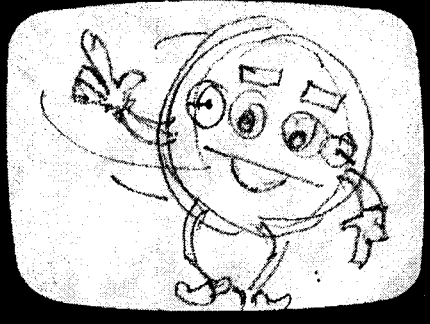
SEE, THE MORE POWER YOU...



USE THE FASTER I GO...



BUT HERE'S GREAT NEWS...

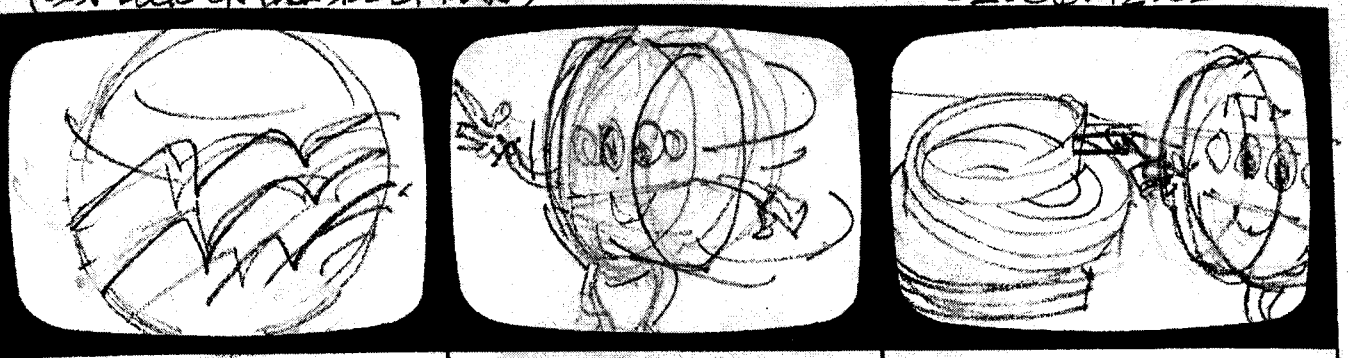


YOU CAN HELP ME SLOW!

Tyau Advertising, Inc.

Client: SULPHUR SPRINGS VALLEY ELECTRIC
Spot #: SSV 851
Title: "ANIMATED" 3A PG. 1
Length: :30 Feb 2009
02:06:12:02

(SSV LOGO ON BACKSIDE OF MAX)



SSV HAS LOW COST AND...

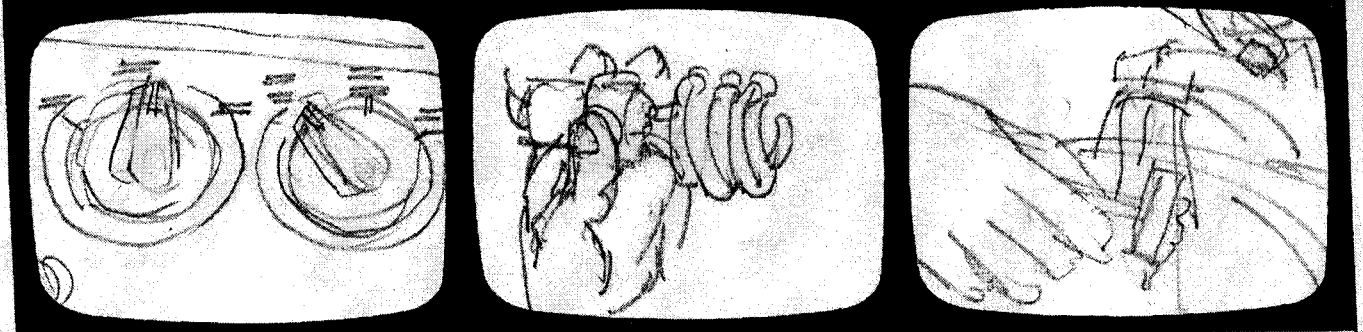
01:02:54:25

NO-COST HELPFUL HINTS...
(MAX SPINS LEFT TO RIGHT

01:23:10:10

LIKE WEATHER-STRIP WINDOWS...

01:22:28:17



AND COLD WATER RINSE...

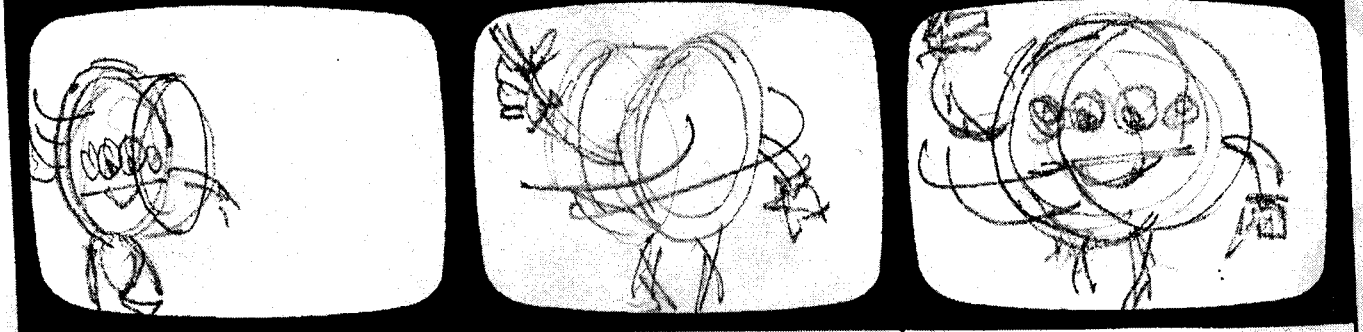
(MAX SPINS ON RAPIDLY...

USE CFL LIGHTING THAT HELPS YOU SAVE AND DON'T...

THEN

RUN HOT WATER WHILE YOU WASH OR SHAVE...

SLOWS DOWN SPINNING SPEED)



GO ON LINE AND...

YOU'LL FIND WAYS...

TO MAKE ME SPIN SLOWER...

Tyau Advertising, Inc.

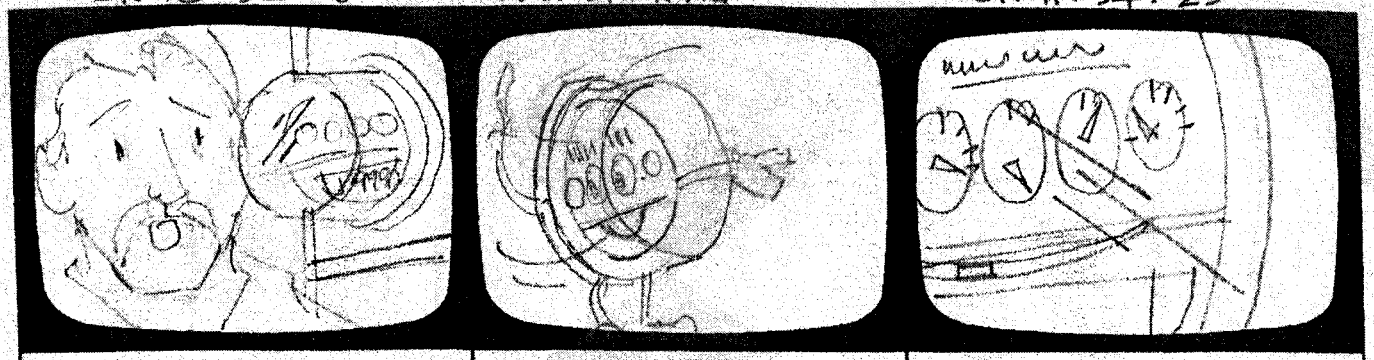
Client: SULPHUR SPRINGS VALLEY ELECTRIC
Spot #: SSV 851
Title: "ANIMATED" 3A PG 3
Length: :30 Feb 2009

WHICH, IN TURN, CAN MAKE YOUR ELECTRIC BILL LOWER.

Tyau Advertising, Inc.

Client: SULPHUR SPRINGS VALLEY ELECTRIC
Spot #: SSV 850
Title: "Motor Miser Measures" 3A
Length: :30 Feb. 2009 PG. 1

01:10:52:08 MAX SPINNING 01:11:54:23



ALBERT: METER MISER!

02:02:39:27

ANNCR: IT'S A MEASURE TO MAKE YOUR...

02:04:02:08

METER RUN SLOWER

01:15:39:15

THAT CAN ALSO MAKE...

01:13:53:24

DAVID: YOUR ELECTRIC BILL LOWER.

00:59:13:16

ANNCR: FOR EXAMPLE, SET WATER TEMP AT ONE HUNDRED TWENTY

00:58:05:25

ALBERT: CHANGE FILTERS MONTHLY...

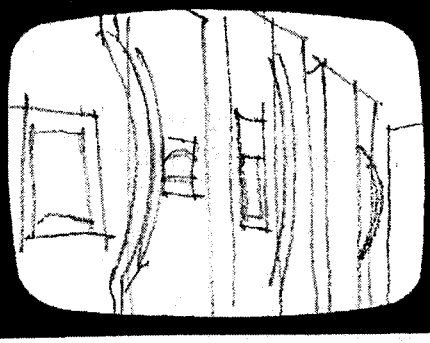
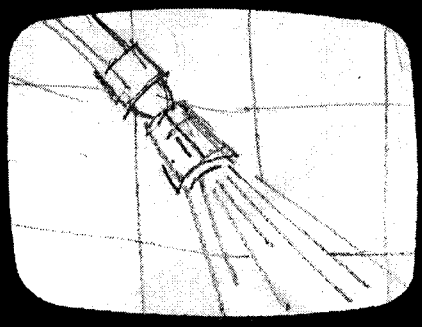
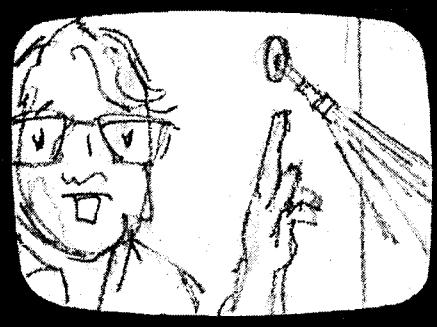
ANNCR: YOU'LL REALLY SAVE PLENTY...

BUY ENERGY STAR —...

Tyau Advertising, Inc.

Client: SULPHUR SPRINGS VALLEY ELECTRIC
Spot #: SSV 850
Title: "Meter Miser Measures" 3A
Length: :30 PG. 2

01:01:05:20 | 01:16:27:20 | 01:19:13:28

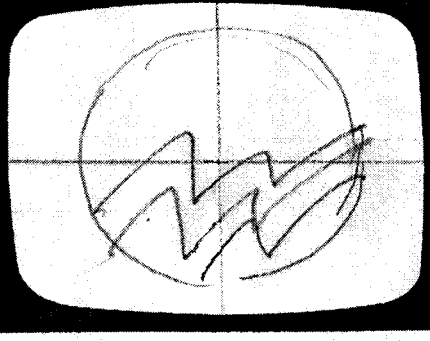




THEY USE LESS POWER...

SSVEC LOGO

AND SAVE WATER AND ENERGY

DAVID: WITH LOW FLOW IN THE SHOWER



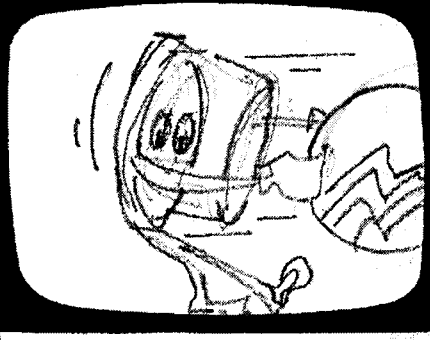
Ceiling Fan spinning 01:05:41:06
Cooktop 01:01:34:00
Caulking Pipe entry 01:04:28:14
CFL Light Bulb 01:25:10:10
Furnace Filter Being Changed 01:15:30:28
Microwave Oven 01:08:45:17
Freezer Setting Temp 01:07:37:05
C.U. Caulking Window 01:03:46:14

ANNCR: AT SSVEC,

MAX PULLS ON LOGO BALL

WE'RE HERE TO HELP YOU USE LESS ENERGY AND SAVE...

MONEY. FOR ONE HUNDRED ONE LOW-COST AND NO-COST



Sulphur Springs Valley Electric Cooperative Inc.
www.ssvec.org

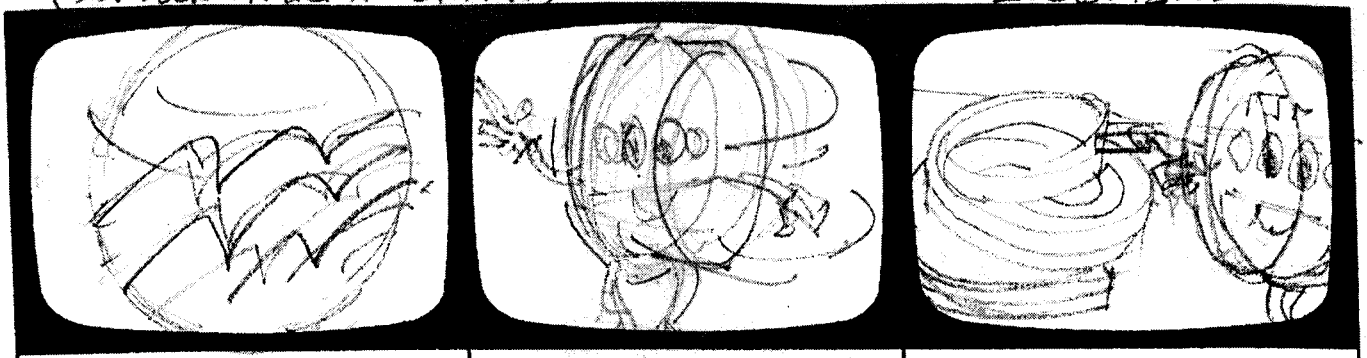
METER MISER MEASURES, CALL US...

OR GO TO SSVEC.ORG.

Tyau Advertising, Inc.

Client: SULPHUR SPRINGS VALLEY ELECTRIC
Spot #: SSV 851
Title: "ANIMATED" 3A Pg. 1
Length: :30 Feb 2009
02:06:12:02

(SSV LOGO ON BACKSIDE OF MAX)



SSV HAS LOW COST AND...

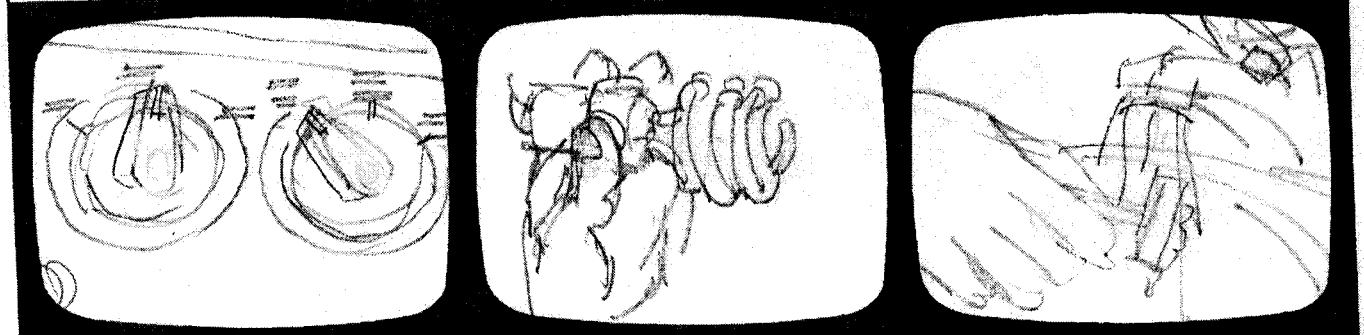
01:02:54:25

NO-COST HELPFUL HINTS...
(MAX SPINS LEFT TO RIGHT

01:23:10:10

LIKE WEATHER-STRIP WINDOWS...

01:22:28:17



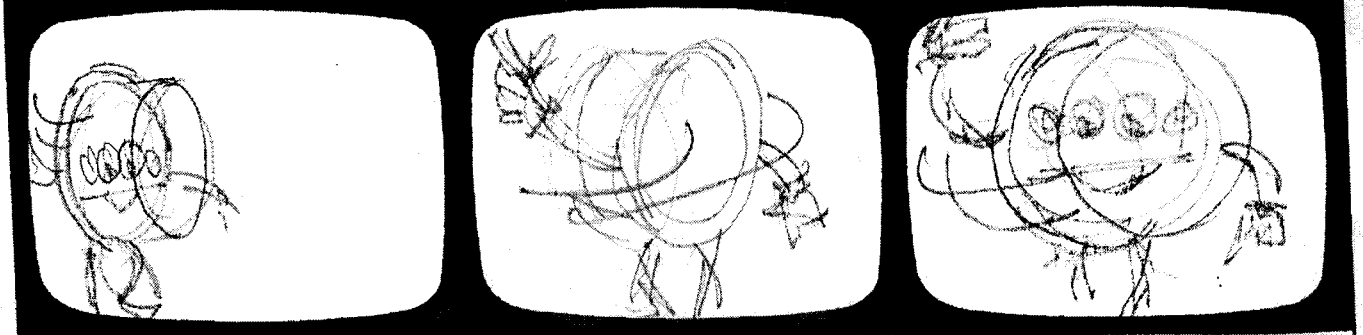
AND COLD WATER RINSE...

(MAX SPINS ON RAPIDLY...

USE CFL LIGHTING THAT HELPS YOU SAVE AND DON'T...

RUN HOT WATER WHILE YOU WASH OR SHAVE...

THEN SLOWS DOWN SPINNING SPEED)



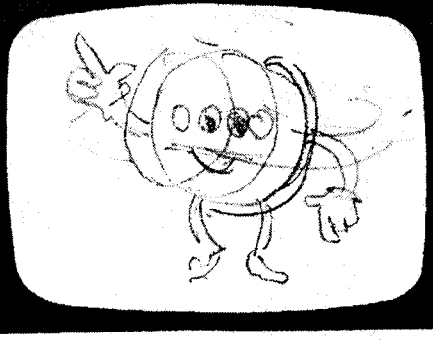
GO ON LINE AND...

YOU'LL FIND WAYS...

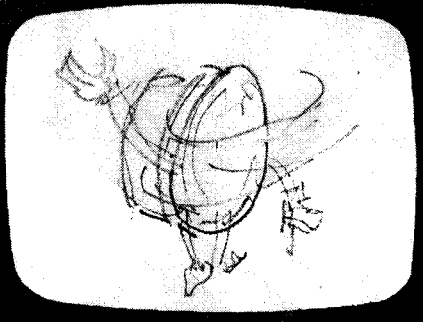
TO MAKE ME SPIN SLOWER...

Tyau Advertising, Inc.

Client: SULPHUR SPRINGS VALLEY ELECTRIC
Spot #: SSV 851
Title: "ANIMATED" 3A PG 2
Length: :30

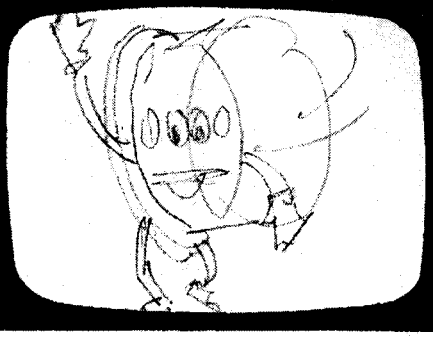


MAX: I'M MAX THE METER...



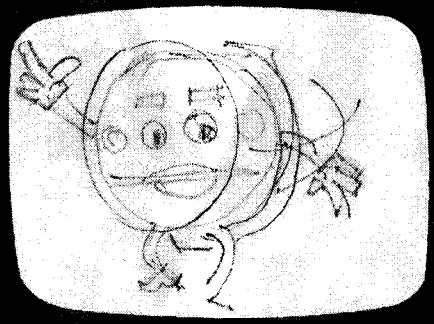
AND I'D LIKE TO BEGIN...

01:11:54:23



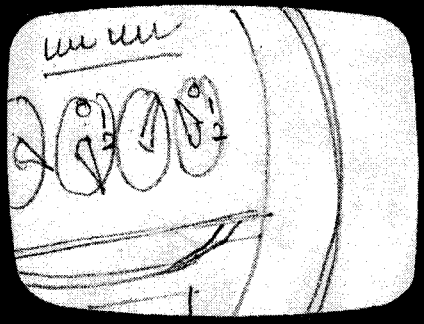
BY TALKING 'BOUT...

01:07:35:00

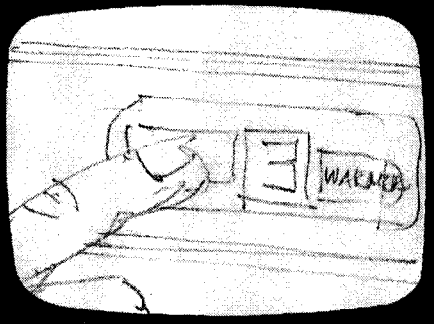


ELECTRIC USE...

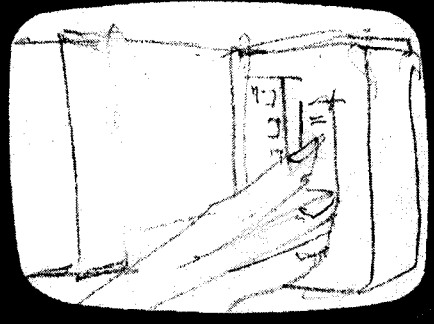
01:25:24:23



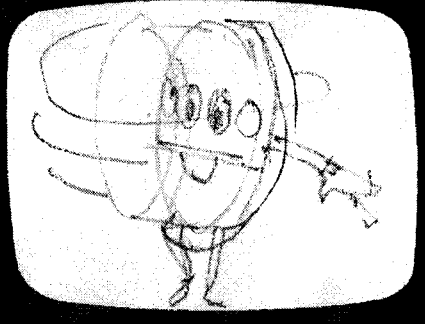
AND MY RATE OF SPIN



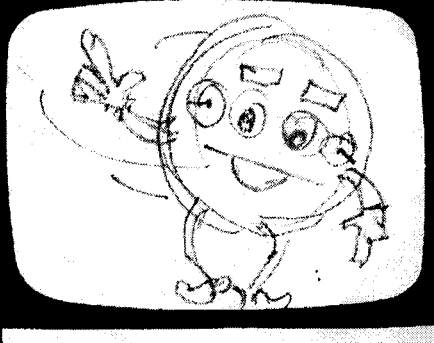
SEE, THE MORE POWER YOU...



USE THE FASTER I GO...



BUT HERE'S GREAT NEWS...



YOU CAN HELP ME SLOW!

Tyau Advertising, Inc.

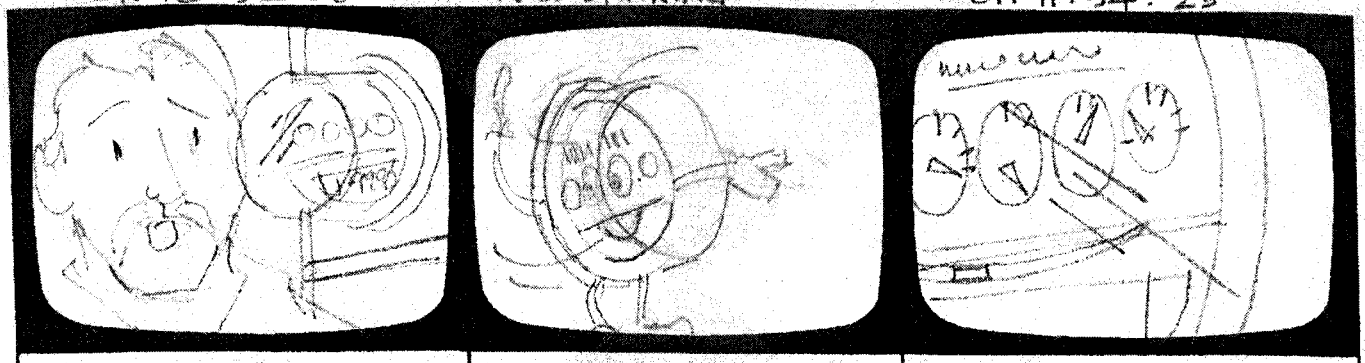
Client: SULPHUR SPRINGS VALLEY ELECTRIC
Spot #: SSV 851
Title: "ANIMATED" 3A PG 3
Length: :30 Feb 2009

WHICH, IN TURN, CAN MAKE YOUR ELECTRIC BILL LOWER.

Tyau Advertising, Inc.

Client: SULPHUR SPRINGS VALLEY ELECTRIC
Spot #: SSV 850
Title: "Meter Miser Measures" 3A
Length: :30 Feb. 2009 PG. 1

01:10:52:08 MAX SPINNING 01:11:54:23



ALBERT: METER MISER!

02:02:39:27

ANNCR: IT'S A MEASURE TO MAKE YOUR...

02:04:02:08

METER RUN SLOWER

01:15:39:15

THAT CAN ALSO MAKE...

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DAVID: YOUR ELECTRIC BILL LOWER.

00:59:13:16

ANNCR: FOR EXAMPLE, SET WATER TEMP AT ONE HUNDRED TWENTY

00:58:05:25

ALBERT: CHANGE FILTERS MONTHLY...

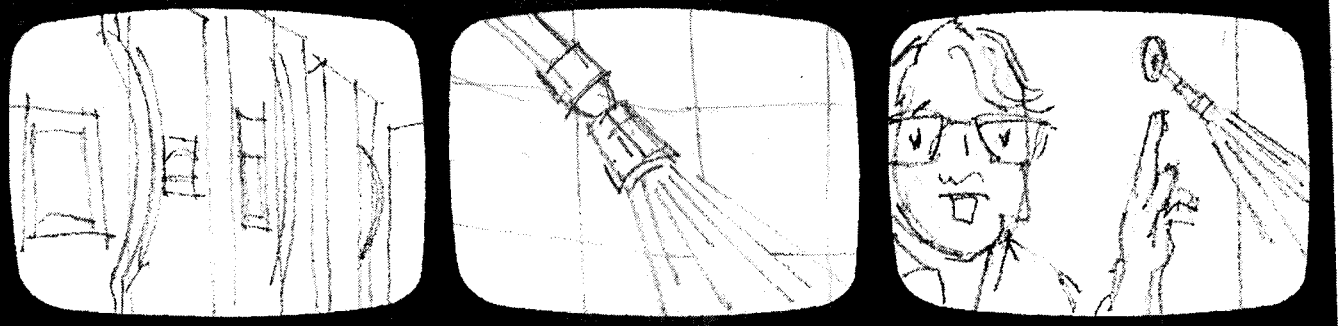
ANNCR: YOU'LL REALLY SAVE PLENTY...

BUY ENERGY STAR —...

Tyau Advertising, Inc.

Client: SULPHUR SPRINGS VALLEY ELECTRIC
Spot #: SSV 850
Title: "Meter Miser Measures" 3A
Length: :30 PG. 2

01:01:05:20 | 01:16:27:20 | 01:19:13:28

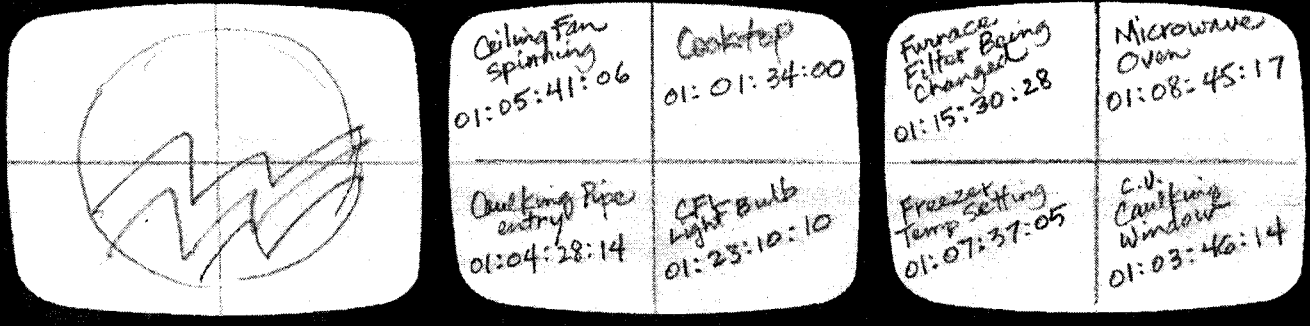


THEY USE LESS POWER...

SSVEC LOGO

AND SAVE WATER AND ENERGY

DAVID: WITH LOW FLOW IN THE SHOWER



ANNCR: AT SSVEC,

MAX PULLS ON LOGO BALL

WE'RE HERE TO HELP YOU USE LESS ENERGY AND SAVE...

MONEY. FOR ONE HUNDRED ONE LOW-COST AND NO-COST

METER MISER MEASURES, CALL US...

OR GO TO SSVEC.ORG.

RADIO

Client: **Sulphur Springs Valley Electric Cooperative**
Job No: **SSV 2009**
Description: **"Meter Misers Radio #1"**
:60 Radio Spot
Date: **REVISED 1-8-09**

Tyau Advertising, Inc.

ANNCR:

EVER WATCH YOUR ELECTRIC METER SPINNING AROUND?
WE HAVE SOME WAYS TO SLOW THAT THING DOWN.
"METER MISERS" THEY'RE CALLED CUZ HERE'S WHAT THEY DO.
THEY SAVE ON YOUR ENERGY USE AND YOUR MONTHLY BILLS TOO.
SET YOUR WATER HEATER TEMPERATURE AT ONE HUNDRED TWENTY.
WEATHER-STRIP WINDOWS—THAT COULD SAVE PLENTY.
DON'T RUN THE HOT WATER WHEN YOU WASH OR SHAVE.
WHEN POSSIBLE DO COOKING IN YOUR MICROWAVE
DO FULL LOADS OF LAUNDRY, TAKE A SHORTER HOT SHOWER
SO MANY SMALL, SIMPLE WAYS TO SAVE ON THE POWER.

MAX THE METER:

SSVEC WANTS TO HELP YOU MAKE YOUR METER SPIN SLOWER
MAKING YOUR MONTHLY ELECTRIC BILL LOWER.

(PAUSE)

HI, MAX THE METER HERE! AT SULPHUR SPRINGS VALLEY ELECTRIC COOPERATIVE, WE BELIEVE ONE OF OUR MOST IMPORTANT JOBS IS HELPING YOU USE LESS ELECTRICITY. AND IF WE CAN HELP YOU GET YOUR METER SPINNING SLOWER, WE'RE HELPING MAKE YOUR ELECTRIC BILL LOWER.

ANNCR:

FOR MORE INFORMATION, CALL SSVEC. OR, FOR ONE HUNDRED AND ONE LOW-COST AND NO-COST METER MISER MEASURES, VISIT SSVEC. ORG.

RADIO

Tyau Advertising, Inc.

Client: **Sulphur Springs Valley Electric Cooperative**
Job No: **SSV 2009**
Description: **"Meter Misers Radio #2"**
:60 Radio Spot
Date: **REVISED 1-8-09**

ANNCR:

INTRODUCING METER MISERS, CALLED THAT BECAUSE
SLOWING YOUR ELECTRIC METER IS WHAT EACH ONE DOES
THEY'RE MEASURES THAT MAKE YOUR METER SPIN SLOWER
WHICH, IN TURN, WILL MAKE YOUR ELECTRIC BILL LOWER.
NUMBER FOUR METER MISER CAN SLOW DOWN THAT METER
IT SAYS DRAIN THE SEDIMENT FROM YOUR WATER HEATER
CHANGE TO CFL LIGHTING, IT USES LESS POWER
AND SAVE EVEN MORE WITH LOW FLOW HEADS ON THE SHOWER
METER MISER SEVENTEEN IS A QUICK HELPFUL HINT
BEFORE EACH DRYER LOAD, CLEAN OUT THE LINT

MAX THE METER:

AND NUMBER TWENTY SEVEN IS ANOTHER EASY PROPOSAL.
USE ONLY COLD WATER WITH THE GARBAGE DISPOSAL.

(PAUSE)

HI, MAX THE METER HERE! AT SULPHUR SPRINGS VALLEY ELECTRIC COOPERATIVE, WE BELIEVE ONE OF OUR MOST IMPORTANT JOBS IS HELPING YOU USE LESS ELECTRICITY. AND IF WE CAN HELP YOU GET YOUR METER SPINNING SLOWER, WE'RE HELPING MAKE YOUR ELECTRIC BILL LOWER.

ANNCR:

FOR MORE INFORMATION, CALL SSVEC. OR, FOR ONE HUNDRED AND ONE LOW-COST AND NO-COST METER MISER MEASURES, VISIT SSVEC.ORG.

RADIO

Tyau Advertising, Inc.

Client: **Sulphur Springs Valley Electric Cooperative**
Job No: **SSV 2009**
Description: **"Meter Misers Radio #3"**
:60 Radio Spot
Date: **REVISED 1-8-09**

ANNCR:

SAVING MONEY IS ONE OF LIFE'S LITTLE PLEASURES
NOW SSVEC INTRODUCES SOME CASH-SAVING MEASURES
METER MISERS WE CALL THEM; THERE ARE 101.
THEY CAN SAVE ON YOUR BILL WHEN ALL'S SAID AND DONE
CONSIDER NUMBER FIFTEEN OF OUR HOME HELPFUL HINTS
WHEN DOING LAUNDRY ALWAYS SET TO COLD RINSE.
AND THINK OF THE WATTAGE YOU CAN REDUCE
BY TURNING OFF LIGHTS WHEN THEY'RE NOT IN USE.
METER MISER NINETY-TWO SAYS YOU'LL SAVE IF YOU'RE ABLE
TO CAULK THE WALL ENTRY POINTS OF WIRES, PIPES AND CABLE.

MAX THE METER:

AND YOU'LL REALLY SLOW THE SPEED THAT YOUR METER IS MOVED
WHEN YOU BUY NEW APPLIANCES THAT ARE ENERGY STAR APPROVED

(PAUSE)

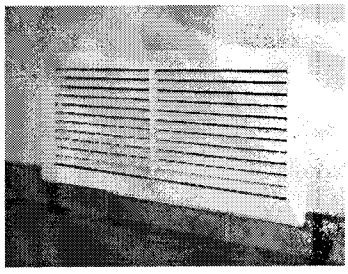
HI, MAX THE METER HERE! AT SULPHUR SPRINGS VALLEY ELECTRIC COOPERATIVE, WE BELIEVE ONE OF OUR MOST IMPORTANT JOBS IS HELPING YOU USE LESS ELECTRICITY. AND IF WE CAN HELP YOU GET YOUR METER SPINNING SLOWER, WE'RE HELPING MAKE YOUR ELECTRIC BILL LOWER.

ANNCR:

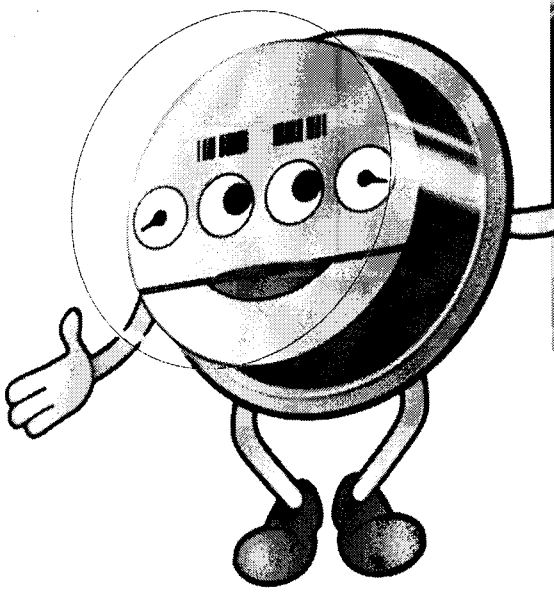
FOR MORE INFORMATION, CALL SSVEC. OR, FOR ONE HUNDRED AND ONE LOW-COST AND NO-COST METER MISER MEASURES, VISIT SSVEC. ORG.

Meter Miser Measures #58, #59, #76

Save on heating and cooling by running ceiling fans on medium speed–with blades blowing air down in summer and up in winter. Also, make sure return air grilles are not blocked by furniture or bookcases.



Get your meter spinning slower and your monthly bill lower. For 101 low-cost and no-cost meter miser measures, go to **ssvec.org**.



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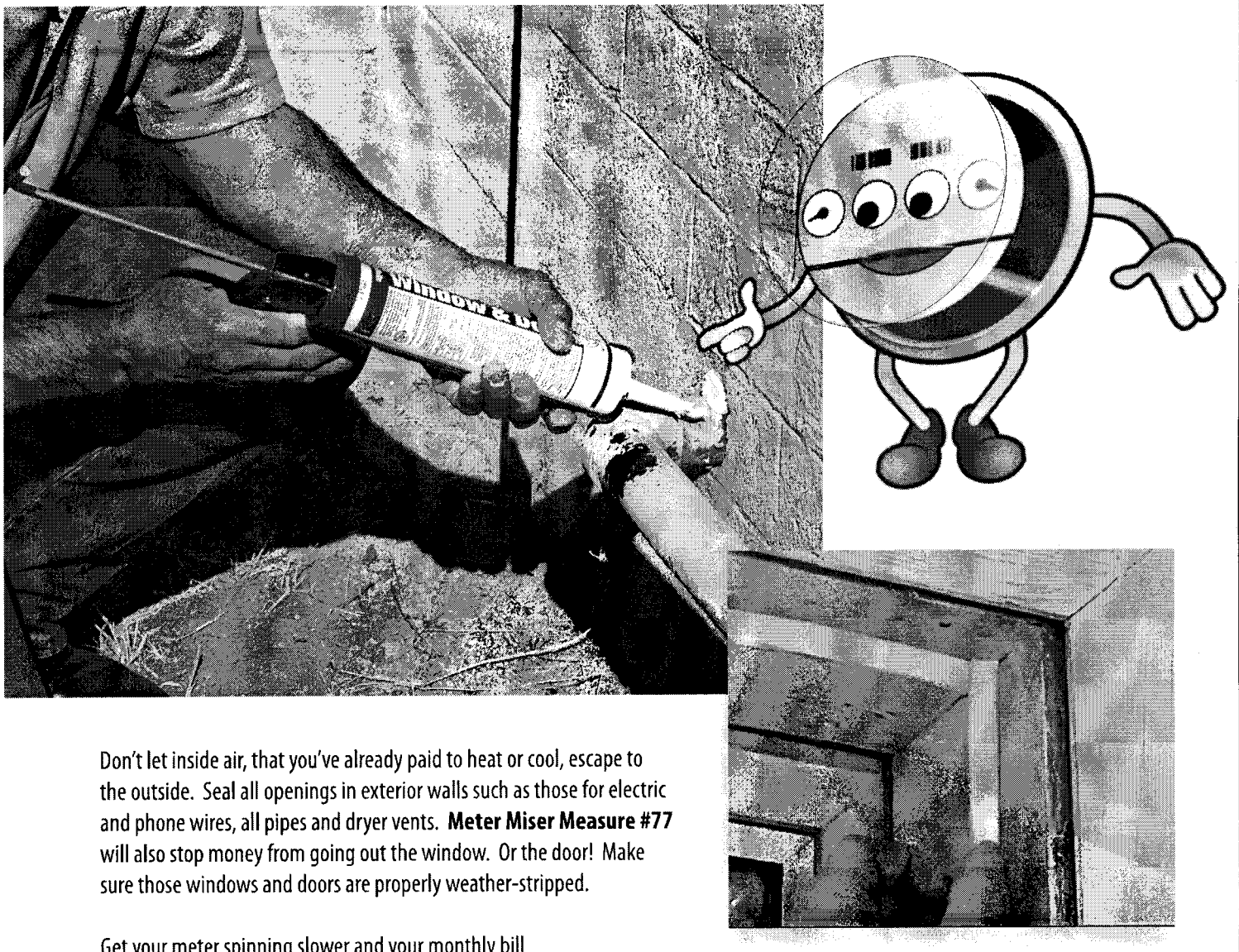
Meter Miser Measure #92



Don't let inside air, that you've already paid to heat or cool, escape to the outside. Seal all openings in exterior walls such as those for electric and phone wires, all pipes and dryer vents. **Meter Miser Measure #77** will also stop money from going out the window. Or the door! Make sure those windows and doors are properly weather-stripped.

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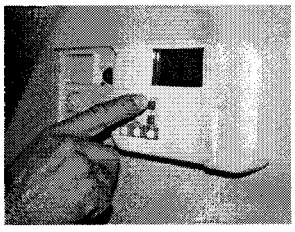
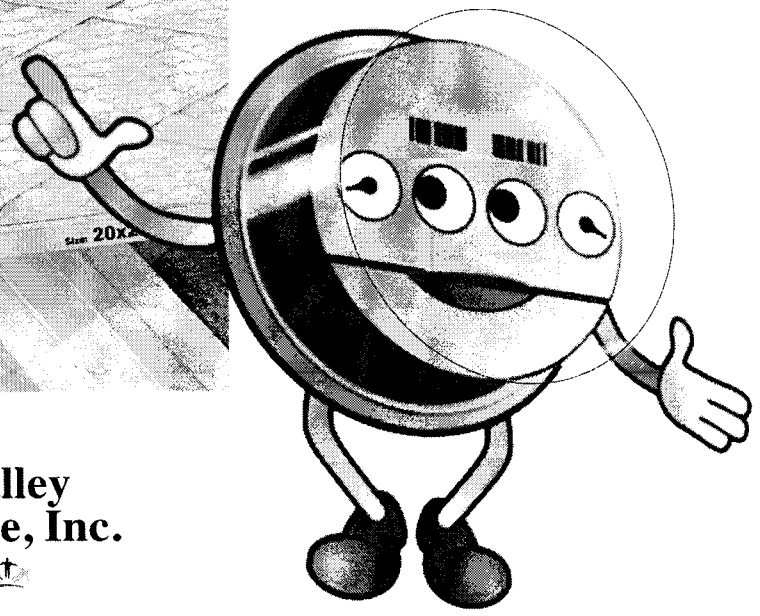
Meter Miser Measure #60

Change the filters in your heating and cooling system monthly. It's one of the easiest and most effective ways to lower energy usage. You should also have your system serviced once a year by a qualified technician. Save even more with **Meter Measure #57**: set your thermostat at 78 degrees in summer and 68 degrees in winter. Get your meter spinning slower and your monthly bill lower. For 101 low-cost and no-cost meter miser measures, go to **ssvec.org**.





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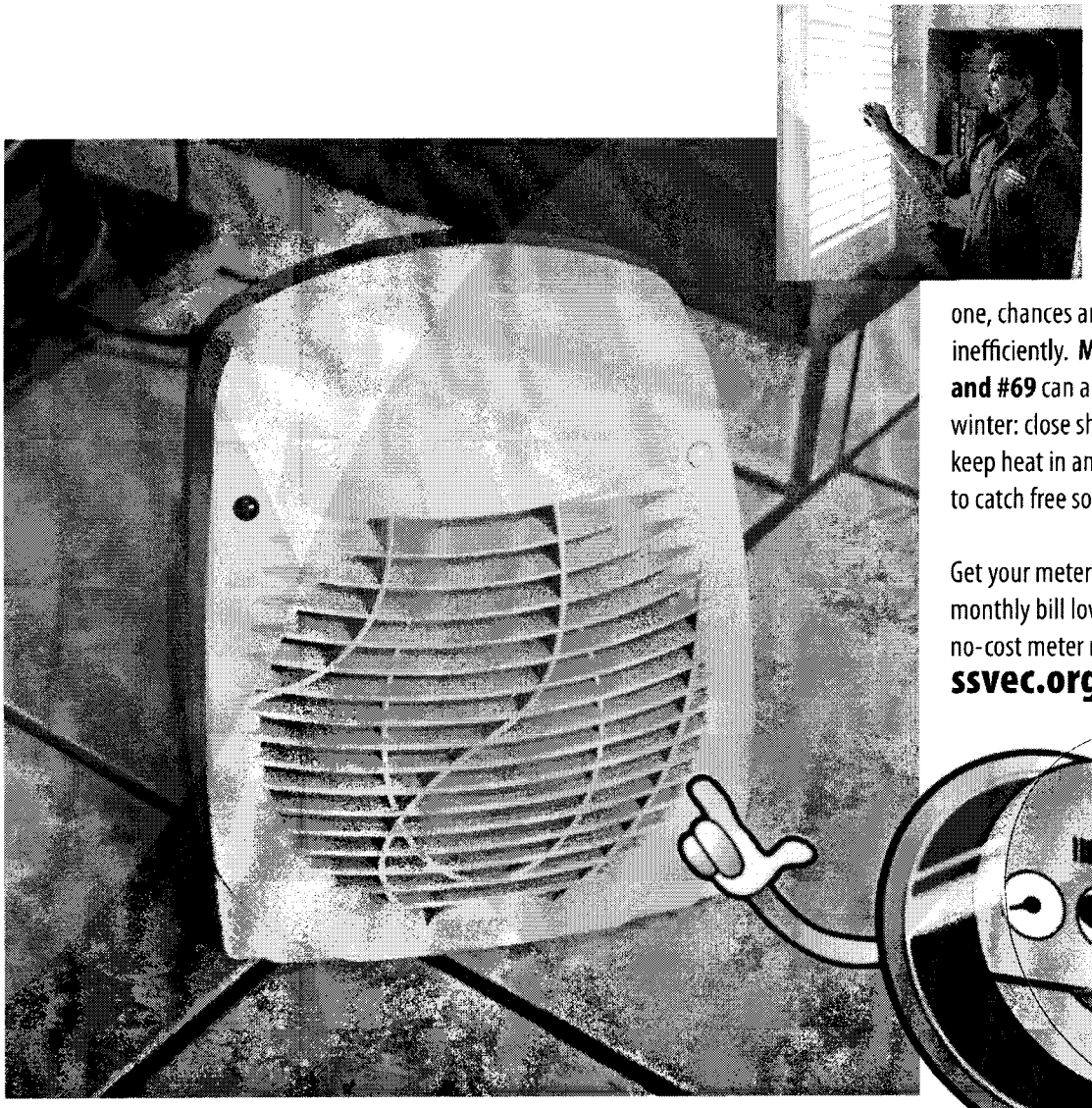
Meter Miser Measure #86



When it comes to space heaters, be wise. Minimize. If you're using more than one, chances are you are heating your home inefficiently. **Meter Miser Measures #68 and #69** can also save you money during the winter: close shades and drapes at night to keep heat in and open them in the daytime to catch free solar heat.

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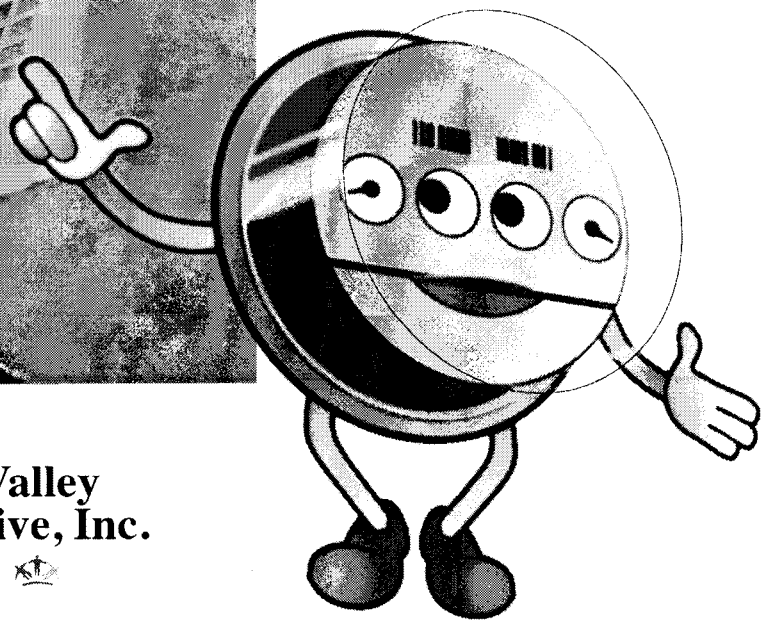

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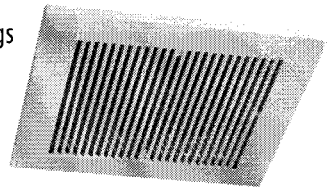
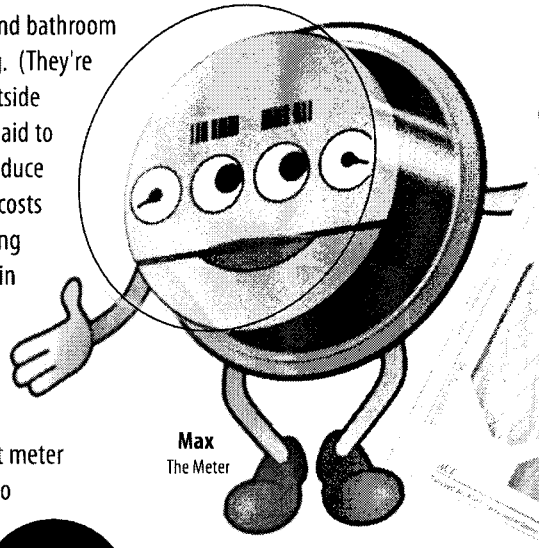
Don't let money go out the window...

These small steps can add up to big savings on your energy bills. For starters, change the filters on your heating/AC system to keep it running efficiently. Install a programmable thermostat to lower the costs even more.



or the ducts... or air filters.

Don't keep kitchen and bathroom exhaust fans running. (They're venting air to the outside that you've already paid to heat or cool). And reduce heating and cooling costs considerably by adding plastic barriers, pop-in insulation panels, or insulated Roman shades on your windows. For 101 low-cost and no-cost meter miser measures, go to **ssvec.org**.



Max
The Meter

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